

ARMIES OF THE OTTOMAN TURKS 1300-1774



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The Gazi State

The birth of the Ottoman state is shrouded in legend, but this reflects some interesting facts about the origins of an Empire which almost brought Christian Europe to its knees.

It is said that a young warrior named Osman fell in love with Malkhatun, daughter of the saintly Sheikh Edebali. Being poor, his only hope lay in winning military fame. In so doing Osman captured the Greek lord of Khirmencik castle, Köse Mikhal, and the two men became friends. It was only when Osman told Edebali about a strange dream that he won his beloved's hand. In this dream Osman saw a moon (symbolising Malkhatun) rise from the Sheikh's chest and set in Osman's own. Immediately a great tree (an ancient Turkish sacred symbol) sprang from Osman's chest and spread across the sky while from its roots flowed four mighty rivers (Tigris, Euphrates, Nile and Danube). Suddenly a wind made its sword-shaped leaves all point to the city of Istanbul (Constantinople). Sheikh Edebali interpreted this as a prophecy of world domination, and promptly married his daughter to the up-and-coming conqueror.

Other legends say that Osman's tribe, the Kayi, fled west before the Mongols early in the 13th century; that Süleyman its chief drowned in the Euphrates, and that his son Ertuğrul led part of the Kayi on into Seljuk Anatolia, where they were given the border village of Söğüt. It now seems more likely that this small band of nomads arrived in the 11th century. Osman was probably not Ertuğrul's son, but took control of a free-booting *gazi* (religious volunteer) army of Turcoman nomads and Muslim peasants which dominated a rugged stretch of no-man's-land on the Byzantine frontier. This force had close links with Muslim *ahi* groups (part guilds, part religious brotherhoods) in

the local towns, one of which may have been led by Sheikh Edebali.

Such an alliance enabled Osman to create a tiny state around the castle of Karacahisar. The area was full of Turkish warriors and religious leaders fleeing from the pagan Mongols in the east. Help also came from Christian *akritoi* frontier warriors like Köse Mikhal, who felt betrayed by a Byzantine



The angel *Shamhurash* in a late 13th century manuscript from Anatolia. Though written in Persian and made for a Seljuk Turkish ruler, this illumination has many European details. The sword, harness, and stirrups show the mixed equipment used in Turkish-Byzantine frontier regions. (Ms. Pers. 174, f.83, Bib. Nat., Paris)

Empire which no longer gave them military support. Meanwhile the Christian peasantry felt oppressed by an Empire that now relied solely on the support of the land-owning aristocracy.

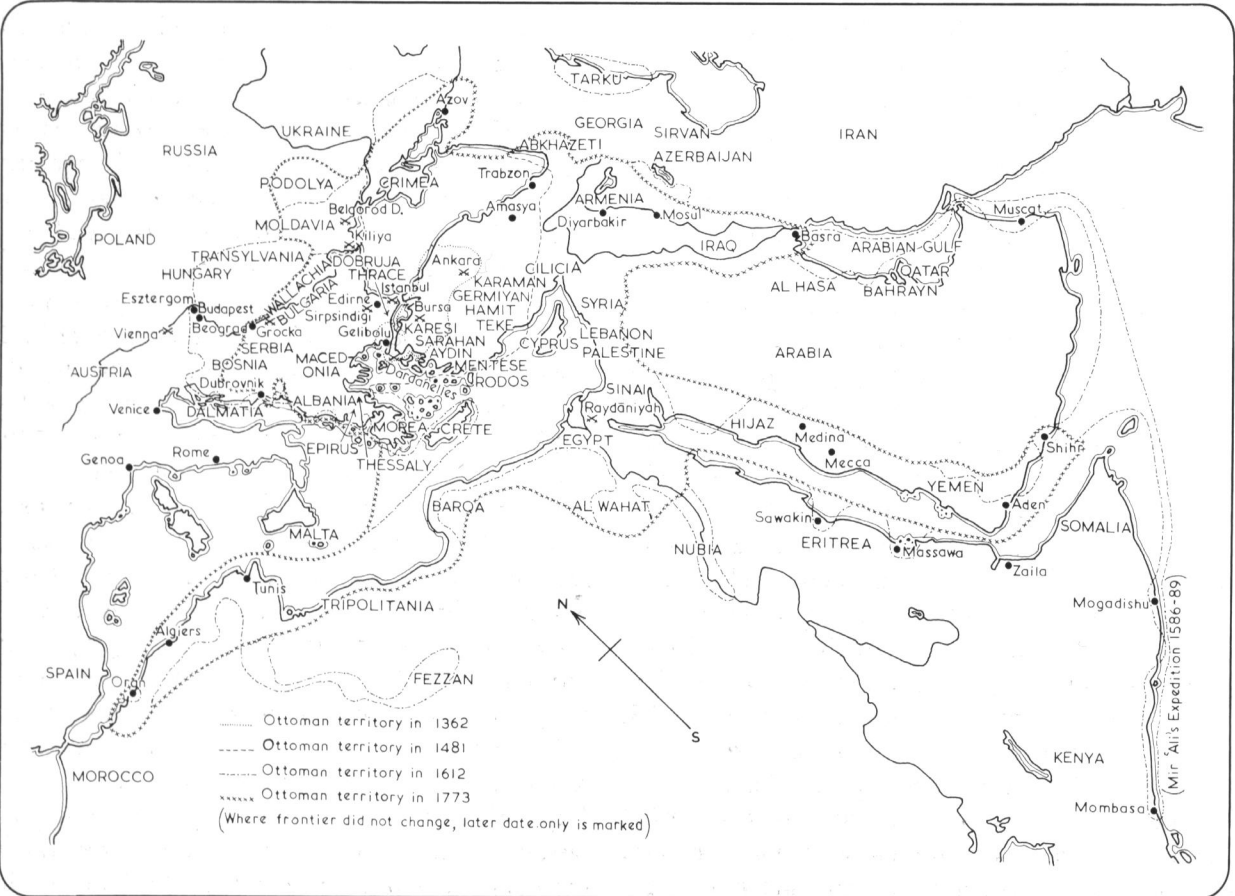
During the last decades of the 13th century, Osman Bey's tiny mountain state took eight frontier castles plus the Turkish town of Eskişehir (Old City), famed in Crusader history as the site of the battle of Dorylaeum. In 1299 Osman seized Yenişehir (New City) after working up the Kara Su valley. With this as its first real capital, the Ottoman (Osmanli) state emerged into history poised above the fertile shores of the Sea of Marmara.

Osman and his immediate successors ruled from the saddle, as Ottoman territory remained a frontier 'march'. Many towns were still under Byzantine control, while rural villages were dominated by Turcoman nomads who migrated to and from the hills according to season. Osman's first

successes were self-perpetuating. Victory over a Byzantine army at Koyunhisar in 1301 spread his fame, and *gazis* and settlers flocked to Ottoman territory. This became a true *gazi* state—'the instrument of God's religion, God's sure sword'—which existed for war, and in which the ruler relied on booty to pay his followers.

Ottoman success went beyond this, however, while the other *gazi* emirates of western Turkey withered away. Perhaps the strength of Byzantine and other resistance toughened the Ottoman army and administration, while also giving its population time to settle down. Once the other Turkish emirates had reached the coast, the Ottomans faced the only remaining Byzantine land-frontier, except for that around Trabzon, and so attracted most of those who wanted to be *gazis*. Yet the Ottomans were also allied to Byzantium on occasion, protecting it from other Turkish or Mongol foes.

The Ottoman Empire.

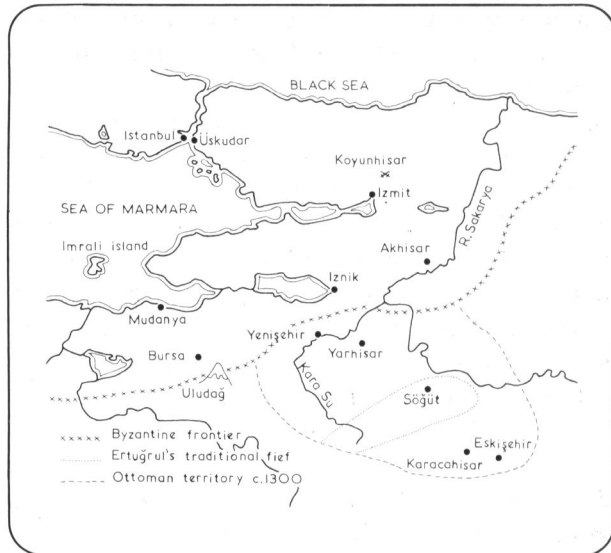


The culture of this frontier march was as complicated as its politics. Its laws were those of Turkish tribal custom, the *yasa*, not of the Muslim Koran. Even its religion was often a strange mixture of orthodox Islam, ancient Turkish shamanist belief, and peasant Christianity. Heretical dervishes accompanied early Ottoman armies on their campaigns. Some of these mystics, claiming that Christianity and Islam were the same religion, even had Christian followers.

Official Ottoman attitudes to Christians and Jews were similarly sympathetic. Previously persecuted minorities like the Bogomils of Bosnia turned Muslim in large numbers, while elsewhere in the Balkans, Orthodox Christians often welcomed the Ottomans as liberators from Catholic domination. Certainly the Turks demanded fewer dues than had previous rulers. Their insistence on rigidly dividing people into military and civilian classes also enabled the Christian warrior aristocracy to preserve its status without conversion, though such families usually became Muslim after several generations. In Anatolia, Greeks like Köse Mikhail and Gazi Evrenos founded powerful Ottoman clans which remained proud of their Byzantine origins. In Rumelia (the Balkans) many of the old feudal *pronoia* fiefs were simply changed into Ottoman *timar* fiefs. Some went to Turkish warriors, others to Christians who now fought for a new master.

During their period of expansion the Ottomans retained their *gazi* outlook, seeing Europe much as the Americans would later see their Western frontier—as a land of destiny. The conquest of Istanbul in 1453 set the seal on this process by uniting Muslim Anatolia and Christian Rumelia under the Sultan's protection. But attitudes changed as the Ottomans went on to the defensive in the 17th century, and local Christians were no longer always loyal. The danger became clear in the 18th century when Ottoman defeats were often followed by the mass slaughter of Muslim minorities, firstly in Moldavia (1769–70) and then in Greece (1771). The massacres which characterised war between Christian and Turk in the 19th century are, of course, well known.

Ottoman tactics were at first those of tribal Turcomans: harassing the foe with horse-archery, but only closing when he was completely disorga-



The birth of the Ottoman state, 1280–1326.

nised. Their earliest successes were against isolated Byzantine garrisons, rarely against a field army. Land was acquired either by defeating local Byzantine noblemen, by buying both Muslim and Christian castles, by absorbing existing landholders into Ottoman society, or by marriage alliances.

Even in the second half of the 14th century an Ottoman army consisted largely of Turcoman cavalry supported by a few infantry; but by the mid-15th century foes already recognised the Ottomans' superior discipline, their skill at ambushes in wooded terrain, and the strength of their camps while in enemy territory. To take a fortified town the Ottomans would ravage the countryside and impose a blockade, where necessary by building small forts. Once in possession, they revived the town's trade and increased its population.

Ottomans who served Byzantium as allies soon saw the Empire's weakness in Europe. Other coastal *gazis* had long raided by sea, so Osman's son Orhan seized an opportunity to occupy the emirate of Karesi and its Dardanelles fleet (1345). The Ottomans could now hold the Gelibolu peninsula (1353) with their new standing army. Expansion into Europe was carefully planned and demonstrated a thorough knowledge of geography. Expeditions were no longer spontaneous. The western frontier was divided into three *uç* or marches under *gazi* commanders, as it had been in



Ottoman mail-and-plate *korazin* with a converted Iranian helmet, early 16th century. (Tower Armouries, London)

Anatolia. After the capture of Edirne (1361) the eastern march, under the ruler himself, aimed across Thrace towards the Black Sea to isolate Istanbul. The western march advanced along the Aegean, threatening Macedonia, Thessaly and Albania, while the central march faced the Marica, Vardar and Nicava valleys through Bulgaria to menace Serbia and Bosnia.

Meanwhile, Ottoman thrusts into Turkish Anatolia provided a firmer power-base. Many were undertaken by Christian vassal troops and were very restrained, being little more than political demonstrations. Far more drastic were the population moves that the Ottomans copied from Byzantium. Balkan Christians were sent to depopulated Thrace and Anatolia, while Turcoman nomads were settled along strategically sensitive routes. Many new villages were formed around *zaviyes* (hospices) set up by dervishes who accompanied the Ottoman army.

Much planning preceded a campaign. Old soldiers and records of previous wars were carefully consulted. Transport, food and munitions were assembled, and villages along major roads were encouraged to grow supplies for an army on the march. Oxen, buffaloes, mules and horses were the main draft animals, though camels were used on difficult secondary roads. Bridges were repaired, and scouts set up stakes or cairns as route-markers.

Ottoman strategy relied on mobility and offensive tactics during their era of expansion, but from the second half of the 17th century, as they lost the tactical initiative, the Turks were increasingly obliged to rely on elaborate field fortifications. Recent research into administrative archives also shows that the Ottomans hardly ever enjoyed the numerical superiority with which they were invariably credited.

Mobilisation orders went out in December, the campaigning season normally being from April to October. Two *tuğs* (horse-tails) were set up in the Palace courtyard if the Sultan was to lead the army, one if the Grand Vizier was in charge. Six weeks later the army set out behind a screen of *akincis* and *delis*, Turcoman and Tartar light cavalry. Élite cavalry skirmishers under the *çarhacibaşı* formed a vanguard. Provincial *sipahi* cavalry protected the flanks and the baggage-train to the rear, while a main force included the Janissaries, headquarters, armoured cavalry of the Palace regiments, artillerymen and engineers. On the march discipline was fierce. Training had been equally strict, though games like the *cirit*—javelin-throwing from horseback—and archery were also popular pastimes. Concern for smartness was such that it even hindered the adoption of untidy weapons like firearms. European observers were struck by the frugal diet of their enemies, the cleanliness of their camps, their well-ordered latrines and their lack of drunkenness, all of which accounted for the absence of disease among Ottoman armies. They were also amazed by the quietness of Turkish encampments.

The establishment of a regular army early in the 14th century saw the emergence of Byzantine and Classical Islamic elements in the Ottoman battle array. Byzantine influence was strong because of the important role played by Christian vassals, particularly in siege warfare. War in the Balkans soon brought the Ottomans up against the Hun-

garians, from whom they adopted the *tabur* field fortification of men with hand-guns in waggons chained together to protect primitive artillery.

By the 16th century Ottoman tactics had reached their classic form. Within a formidable system of entrenchments, *top arabalari* gun-waggons and artillery stood the Sultan, his personal guard of *solaks*, and the Janissaries armed with arquebuses. On their immediate flanks were the armoured *alti bölük* household cavalry. *Azap* infantry assembled in front of the artillery and to the rear, where they and the *müteferrika* guarded the baggage train. On their flanks stood the provincial *sipahi* cavalry. Ahead of them all ranged *akinci* light cavalry, whose task was to draw an enemy towards the *azaps*. They in turn

would absorb his charge, then move aside to allow the artillery and Janissaries to open fire. Finally the flanking *sipahis* would attack and, where possible, surround the foe. Although the highly disciplined Janissaries most impressed the Europeans, their importance was far less than that of the *sipahi* cavalry, the battle-winning offensive element in a classic Ottoman army. The Janissaries were, of course, also trained to attack, but they did so at a rush in large closely-packed formations which rendered their gunfire largely ineffective.

Kilidülbahir castle overlooks the Dardanelles from the Gelibolu peninsula. It was first built by the Ottomans in the late 15th century.



The Ottoman Army, 14th to 16th Centuries

Although the size of the Ottoman army was constantly exaggerated by its enemies it was, at least until the mid-14th century, big in comparison to the size of the Ottoman state. Large numbers of vassals and volunteers would follow the horse-tail *tuğ* ensigns of the Emir and his subordinate *beys*. Only later, when the Ottoman ruler claimed the title of Sultan, did any leader have more than one horse-tail. Thereafter the Sultan had four, his viziers three, *beylerbeyis* two and ordinary *beys* one.

The Turkish illustrations in the 'Fatih Albums' are still a mystery. Some believe this picture was painted in Central Asia, others that it comes from late 14th century eastern Anatolia or western Iran. If so, then it might shed light on early Ottoman equipment. (Ms. Haz. 2153, F.138V, Topkapi, Lib., Istanbul)

Turcoman nomads, the first element in the Ottoman army, were generally known as *akincis* if they served for one campaign as volunteers receiving booty instead of pay, and as *yürüks* if they formed a tribal contingent. Such troops were horse-archers, rarely owning more than leather lamellar armour and still using the ancient Central Asian lasso as a weapon. Turcomans could rarely capture castles or even occupy territory, however, so the emir Orhan relegated them to the frontiers as raiders.

Ex-Byzantine troops included cavalry and infantry. Though many used the bow, they did not employ Turcoman tactics. Most of the *gazis* also seem to have fought in traditional Islamic style as mixed cavalry and infantry (see MAA 125, *The Armies of Islam 7th–11th Centuries*). Such religious volunteers followed a code called the *futuwwa*, which mapped out a virtuous life and formed a bond between a ruler, his *gazis*, and the Caliph or spiritual leader of Islam. Though less clear-cut than the bond of European knighthood, it did have



comparable ceremonies and inspired the same sense of comradeship. From the late 13th century Anatolian *gazis* also wore a distinctive white felt cap, similar to that later adopted by the Janissaries.

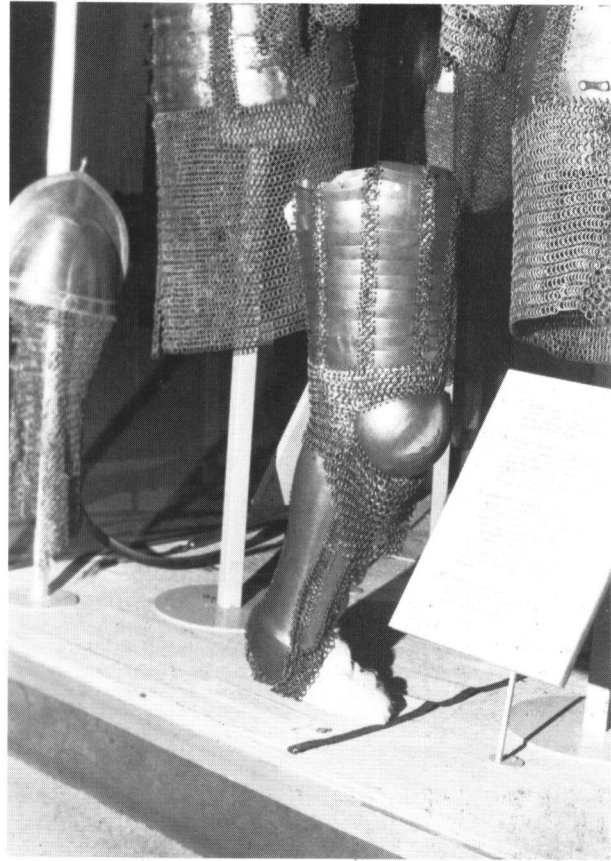
Nevertheless, Emir Orhan soon felt the need for a disciplined professional army. A regularly paid force of Muslim and Christian cavalry and infantry was created by his vizier, Allah al Din. The horsemen were known as *müsellems* (tax-free men) and were organised under the overall command of *sancak beys* into hundreds, under *subaşı*s, and thousands, under *binbaşı*s. The foot-soldiers, or *yaya*, were comparably divided into tens, hundreds and thousands. These infantry archers occasionally fought for Byzantium, where they were known as *mourtatoi*. *Müsellems* and *yayas* were at first paid wages, but by the time of Murat I (1359) they were normally given lands or fiefs in return for military service, the *yayas* also having special responsibility for the protection of roads and bridges.

Being free Turkish farmers, the *yayas* were not easy to control and their loyalty was often to their immediate leaders rather than to the ruler. Both they and the *müsellems* were gradually relegated to second-line duties late in the 14th century, and by 1600 such units had either been abolished or reduced to non-military functions.

The Kapikulu Corps

According to legend the Kapikulu Corps was set up by Kara Halil Çandarlı, brother-in-law of Sheikh Edebali. Its infantry units or Janissaries (*yenî çeri*, 'new troops') were supposedly founded in 1326 when the recruits were blessed by Hacı Bektaş, from whose broad upraised sleeve they adopted the flap that fell behind their white felt caps. In reality the first Janissaries seem to have been prisoners-of-war, following the capture of Edirne a generation later.

Yet the Bektaşî dervishes, founded by Hacı Bektaş, did maintain close links with the Janissaries. Their sheikh became colonel of the 99th Regiment in the 16th century. Bektaşîs lived in the barracks, acted as chaplains and participated in parades. Janissaries were recruited almost exclusively from ex-Christian converts, and so it is interesting that the Bektaşîs should have adopted so many Christian attitudes and rituals. Their founder and their patron saint both became identified with Greek



Turkish mail-and-plate cuisse and greave, 15th-16th century. (Tower Armouries, London)

Orthodox saints, while many Janissaries also carried quotations from the Gospel as lucky charms.

Prisoners captured during *gazi* raids provided plenty of manpower during the 14th century, and not until 1438 was the *devşirme* instigated. This was a kind of human levy; although against Muslim law, it proved unavoidable. By their tolerance in not trying to convert their Christian subjects the Ottomans soon ran short of military and administrative recruits.

The *devşirme* was even popular in some areas. Bosnian Muslims arranged to be included, though Muslims were normally exempt, while in poor regions parents sometimes bribed officials to take their sons and so give them better prospects in life. In its classic 16th-century form the *devşirme* conscripted 1,000 or more boys per year from a selected province. Back in the capital the most intelligent were chosen for training as *iç oğlani*, pages in the Topkapu Palace, while the rest went to work

on farms where they learned Turkish and the Muslim faith before becoming Janissaries. The *iç oğlani* were trained for up to seven years in palace schools which concentrated on character-building, leadership, military and athletic prowess, languages, religion, science, and a creative art of the pupil's choosing. Three further examinations selected men for the Kapikulu cavalry, to be Kapikulu officers and, at the top of the tree, to become military or administrative leaders. All remained bachelors until their training ended, when most married women who had been through a parallel schooling in the Palace harem.

Janissary *ortas* (regiments) mirrored the *gazi* fraternities that first inspired them. Eventually there were one hundred and one *ortas* whose strengths varied from 100 to 3,000 men. Thirty-four

The massive fortifications of Bitlis in south-eastern Turkey were begun by the Byzantines before being added to by every passing conqueror, including the Ottoman Turks.

special *seğmen* units provided the Sultan's infantry guard and were also a source of officers. Selim I added new *ağa bölük* regiments as guards for senior Janissary commanders. Many ranks had culinary titles, a colonel being a *çorbaşı* (chief soup-maker) and a quartermaster an *aşçı başı* (chief cook). Each *orta* had its emblem placed on flags and tents and tattooed on hands, arms or legs. Paid a monthly salary, the men lived as bachelors in large barracks. Promotion was by length of service, and old or disabled Janissaries were given a pension as members of the *oturak* (veterans' unit).

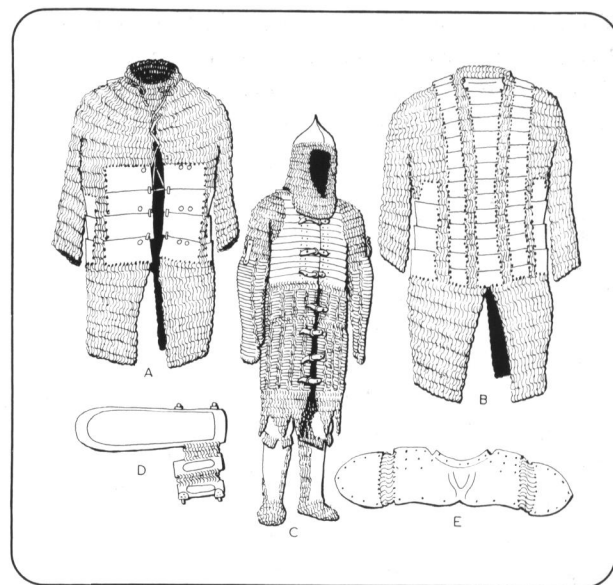
Janissary regiments trained regularly, and in the early days their weapons included bows, slings, crossbows and javelins. Some hand-guns were adopted during wars against the Hungarians (1440-43), and more Janissaries were given fire-arms after defeats by the Mamluks in Cilicia (1485-91), but not until the end of the 16th century did the majority have *tüfek* matchlocks. In general



Janissary guns were longer and fired heavier bullets than did those of Europe.

The Kapikulu Corps steadily grew between the 14th and the 18th century. Rulers wanted them to counter-balance the turbulent provincial forces. Mehmet II (1451–81) placed them under the command of men who had themselves risen through the *devşirme*. At that time the Janissaries numbered about 12,000, and provincial *timar* fiefs were increasingly given to Kapikulu cavalrymen. Süleyman I (1520–66) raised the Corps to 48,000 including 20,000 Janissaries, and enrolled himself as a member of their 1st Regiment. The mid-16th century saw economic crises and provincial revolts that led the Sultan to disperse his Janissaries, previously concentrated around Istanbul, across the Empire as garrison troops. Originally serving only nine-month tours of duty, they soon started putting down roots and developing local loyalties. Their military effectiveness declined, though their numbers increased dramatically as less privileged provincial infantry infiltrated their ranks. From 1582 non-*devşirme* recruits, the sons of Janissaries and free Muslims of many ethnic backgrounds, were officially permitted to join.

The Kapikulu cavalry was militarily more important and had higher prestige than the Janissary infantry. Its members are sometimes confused with feudal, provincial, fief-holding cavalry as both were known as *sipahis*. The Kapikulu cavalry also gradually took over much of the provincial *timar* fief system. Often this was a reward for individual service, but it also balanced the power of the feudal *sipahis*. Known as *süvarileri* or *bölük halkı* (regiment men), the Kapikulu cavalry formed six units. The Left and Right *ulûfeciyan* (salaried men) were founded in the 14th century by Kara Timurtaş Paşa and Emir Murat I out of their own troopers. The Left and Right *gureba* (poor foreigners) were almost as old, having first been recruited from *gazi* volunteers. The *silâhtar* (weapon bearers) was an early bodyguard, but this function was taken over by the élite *sipahi oğlan* (*sipahi* children) created by Mehmet I early in the 15th century. These Kapikulu cavalrymen numbered some 6,000 by the late 16th century. Each unit was commanded by a *kethüda yeri* and included the sons of *süvarileri*, Arab, Persian and Kurdish Muslims, and ex-Janissaries who had distinguished them-



A Front of a Turkish cavalry armour, 16th century. (Met. Museum, New York) B Rear of the same. C Turkish infantry armour with *zirh külâh* helmet, 15th century. (Met. Museum, New York) D Turkish *kolluk vambrace*, 17th-18th century. (Met. Museum, New York) E Turkish shoulder protection, 16th-17th century. (Met. Museum, New York)

selves in battle.

The Kapikulu Corps also included artillery and engineer units, which will be described separately.

The Cavalry

Until the mid-18th century provincial *sipahi* cavalry formed the majority of most Ottoman armies. They numbered around 40,000 men in the 15th and 16th centuries, over half of whom came from the European provinces (Rumelia). Ordinary *timar* fiefs supported one horseman, while the holders of larger *zeamets* were also expected to equip mounted retainers or *cebelüs*. Larger still were the *hass* fiefs of the Sultan's family, viziers and favourite ministers. Though often compared to medieval European fiefs, the *timars* were not the property of a *sipahi*. They were held in trust and gave the *sipahi* only limited rights over the local inhabitants. An ordinary *sipahi* lived in a village, worked his own land, had to pay the peasants for most of their services and received no salary.

In Anatolia the Ottomans normally incorporated existing *sipahis* and their *timars*. At first the process was similar in Christian Rumelia. Many Balkan *pronoia* fiefs were converted into *timars*, their



خاطر زکریا سید شیطان از دنیا
دفعن این خطر روزی حطا
ناله لا حول و خیره نسا
اول اول بکن در صفت هر کانه

One of the earliest surviving Anatolian illustrated Turkish manuscripts is this *Iskandar-namah* by Ahmedi, made in Amasya in 1416. Its archaic style and costumes are almost identical to the so-called 'Red-Ground' *Shahnamahs* from southern Iran a century earlier. (Ms. Turc 309, f.130v, Bib. Nat., Paris)

existing owners keeping the land but losing their domination over the peasants. Some became Muslim but others remained Christian for generations. Even after conversion many such *sipahis* retained their old family names. Among the best-known Christian *sipahis* were members of the Slav aristocracy like Constantine Dejanović, lord of Kjustendil in eastern Macedonia, who fought for the Sultan at Kosova (1389); and Kraljević Marko, a leading nobleman who later became the great folk-hero of Serbian legend. Both died fighting for the Ottomans in 1395. In the mid-15th century the Vidin area of north-western Bulgaria sent Mehmet II seven Christian *sipahis* with their *voinik* infantry

followers. A few Christian *sipahis* are still recorded even at the end of the 15th century.

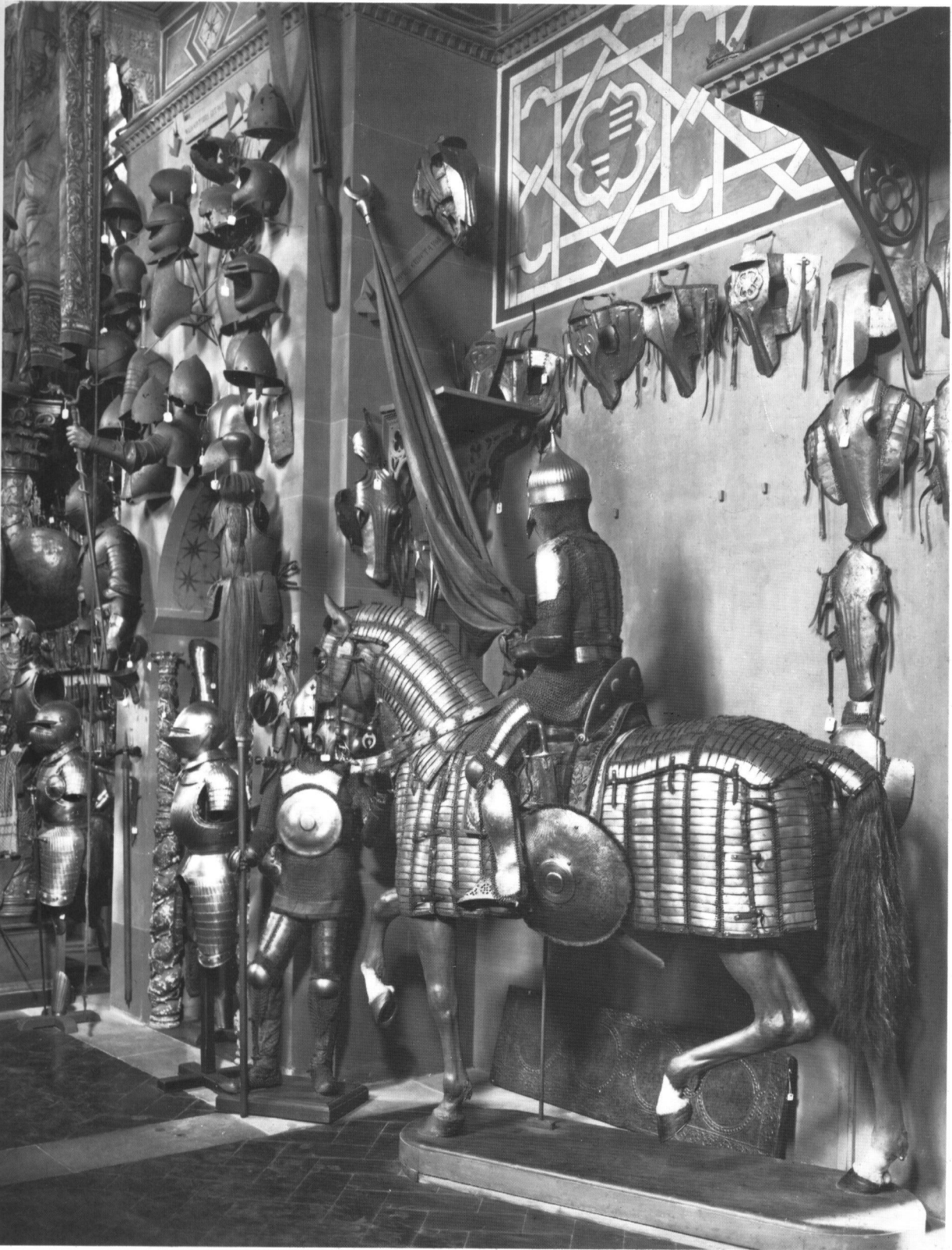
The quality of a *sipahi's* weaponry reflected the size of his fief. Most were lightly equipped compared to the Kapikulu cavalry, and a *sipahi* was only expected to have armour if his *timar* was above a certain value. Nevertheless, even in the late 16th century Europeans, while considering their infantry superior to that of the Ottomans, conceded that the Turkish *sipahi* was the better cavalryman. All European tactical developments which arose out of war with the Ottomans reflected the *sipahi* threat, not that of the Janissaries.

On mobilisation, one of every ten *sipahis* remained at home to maintain law and order. The rest formed into *alay* regiments under their *çeribaşı*, *subaşı* and *alay bey* officers. These led them to the local *sancak bey's* two-horse-tail standard. The men of each *sancak* then assembled around a provincial governor or *beylerbeyi* before riding to the Sultan's camp. On the battlefield either the *sipahis* of Rumelia or those of Anatolia were given the place of honour on the right flank, depending on whether the war was in Europe or Asia.

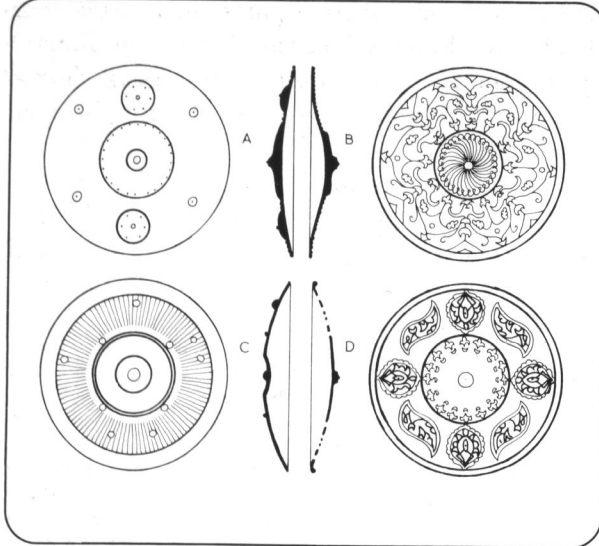
After 1533 a new type of *timar* was established along the Hungarian frontier. Instead of living on their fiefs, these *sipahis* stayed in strategic towns like Budapest, Timișoara, Belgrade and Esztergom where they supported the garrisons. In general, however, the 16th century was a period of decline in *sipahi* fortunes. The majority of fiefs were now held by Kapikulu cavalrymen. Some were even sold to non-military men for cash. Stagnation and retreat reduced the number of *timars* but not those who needed them. Meanwhile men who did hold fiefs often paid second-rate soldiers to serve in their place.

The *sipahi* also found himself unable to cope with increasingly disciplined European infantry armed with ever more effective muskets. The Ottoman government tried to arm their horsemen with pistols, but only after 1600 did many *sipahis* accept such unchivalrous weapons.

Ottoman auxiliary cavalry made a deep impression in Europe. They were fast-moving, far-ranging and ruthless, appearing as if from nowhere. During the 14th and 15th centuries most auxiliaries were of nomad Turcoman origin. With the creation of a professional army, these warriors had been



Mixed Mamluk and Ottoman armour and bard, 16th century.
(Museo Stibbert, Florence)



A Bound cane *kalkan* shield, 17th century. City Historical Museum, Vienna) B Bound cane *kalkan* shield, 16th century. (Real Armeria, Madrid) C Iron *kalkan* shield, 18th century(?) (Army Museum, Istanbul) D Decorative brass *kalkan* parade-shield, 18th century(?) (Army Museum, Istanbul)

relegated to frontier regions in Rumelia where, instead of being called *gazis*, they were now known as *akincis* (raiders). In Anatolia the Turcomans proved harder to control. They had formed the armies of those small emirates absorbed by the Ottoman Empire. Then, early in the 16th century, the Turcomans rose again under the influence of Shii doctrine from Iran. This was the Kizilbaş ('Red Head') rebellion, which shook the Ottoman Empire to its foundations.

The role of *akincis* during a major campaign was to precede the army, raid deep into enemy territory, terrorise the foe and disrupt his communications. At the same time they gathered information, and seized control of roads and passes before the main army arrived. At other times *akincis* defended Turkish frontiers from counter-raids. They were also sent to conquer difficult mountainous areas or, if this proved impossible, to contain any threat by constant guerilla warfare against those who resisted Ottoman rule.

The organisation of *akinci* forces was simple but effective. Until the mid-15th century most frontier regions were administered by hereditary *uç beys* (frontier governors). They controlled the *akincis* and were a counterweight to the Turkish nobility who controlled most *sipahis*. Some *akincis* held land or

were paid salaries by their *bey*, but most were supposed to live by plunder. Few Ottoman frontiers were regularly garrisoned during the 16th century. One exception was the re-organised Hungarian march where, after 1533, *akincis* were maintained by *timar* fiefs. During the 15th century Christian Serbia also provided auxiliary horsemen, as well as *sipahis* and vassals, while many early 16th-century Balkan *akincis* were new converts, probably from old Christian *sipahi* families.

A series of defeats in 1595 led to the official disbanding of the *akincis*. However, the *delis* remained. Their name may have been a corruption of *delil*, meaning guide. Appearing late in the 15th century, most of the first such *delis* were recent converts from Croatia, Serbia and Bosnia. *Delis* were recorded elsewhere in Rumelia and Anatolia in the 16th century, but only appeared in Syria in the 17th, by which time they also included Turks and Kurds.

The most important auxiliary cavalry in the Arab provinces were bedouin tribesmen. They played a major role in the deserts east of the Orontes, Litani and Jordan valleys. Armed with guns, swords, daggers, bows and slings, the poverty-stricken bedouin unfortunately tended to raid the Ottoman side of the border as well. Arab bedouin also served as auxiliaries in Egypt, Libya and Tunisia, while in Algeria Berber nomads played a comparable role.

Vassals

Vassals played a more important part in Turkish victories than is generally realised, particularly during the second half of the 14th and early 15th centuries when they may even have formed the bulk of many Ottoman armies. Most areas accepted Ottoman suzerainty after the Turks captured their key towns. Direct rule was subsequently imposed on the southern Balkans early in the 15th century after Christian princes had proved unreliable in the face of western Crusades. The Sultan also tried to impose further uniformity after the capture of Istanbul.

The sons of many princes served as *müteferrika* cavalry in the Ottoman capital. This regiment, which also included the sons of Turkish noblemen, formed part of the Kapikulu Corps. *Müteferrika* were paid, uniformed and educated by the

Ottomans while at the same time being hostages. Bulgaria and Albania were early vassal areas which provided effective cavalry. Shortly before direct rule was imposed in Serbia, one *voynik* infantryman had to come from every five Christian households in the Belgrade region. Guns were also manufactured in late 14th-century Serbia, and these were soon available to the Ottomans. At Ankara (1402) some Serbian infantry in their 'black steel' armour used firearms, while Serbian cavalry fought with spear and sword. In 15th-century Bosnia vassal *lagator* cavalry wore heavy *bürüm*

cuirasses, while their squires had *cebelü* mail hauberks. Hungary had vassal status for almost a generation and, after 1541, even the governors of Austria's frontier acknowledged Ottoman suzerainty.

Wallachia, Transylvania and Moldavia were, however, the most important Christian vassals. Vlach nomads from Wallachia fought for practically every Balkan state, including the Ottomans, as

The Anadolu Hisar was built on the Asian shore of the Bosphorus by Bayezit I as the first stage in the Ottoman strangulation of Byzantine Istanbul.



well as providing vassal contingents of cavalry and *voynik* infantry formations.

East of Moldavia stretched the Khanate of the Crimea. For 300 years these Tartars provided the Ottomans with unarmoured horse-archers fighting in the ancient Central Asian tradition. The Khanate was poor, however, and many of its tribesmen had to fight on foot. Full-time warriors, *oğlans*, formed the ruler's guard while a tribal militia under its own *mirza* aristocracy provided the bulk of any Tartar army. The Khan also had 20 small companies of mounted infantrymen armed with firearms, raised from the farming villages of the royal domain. Tartar bows could otherwise outrange muskets until the 18th century, and

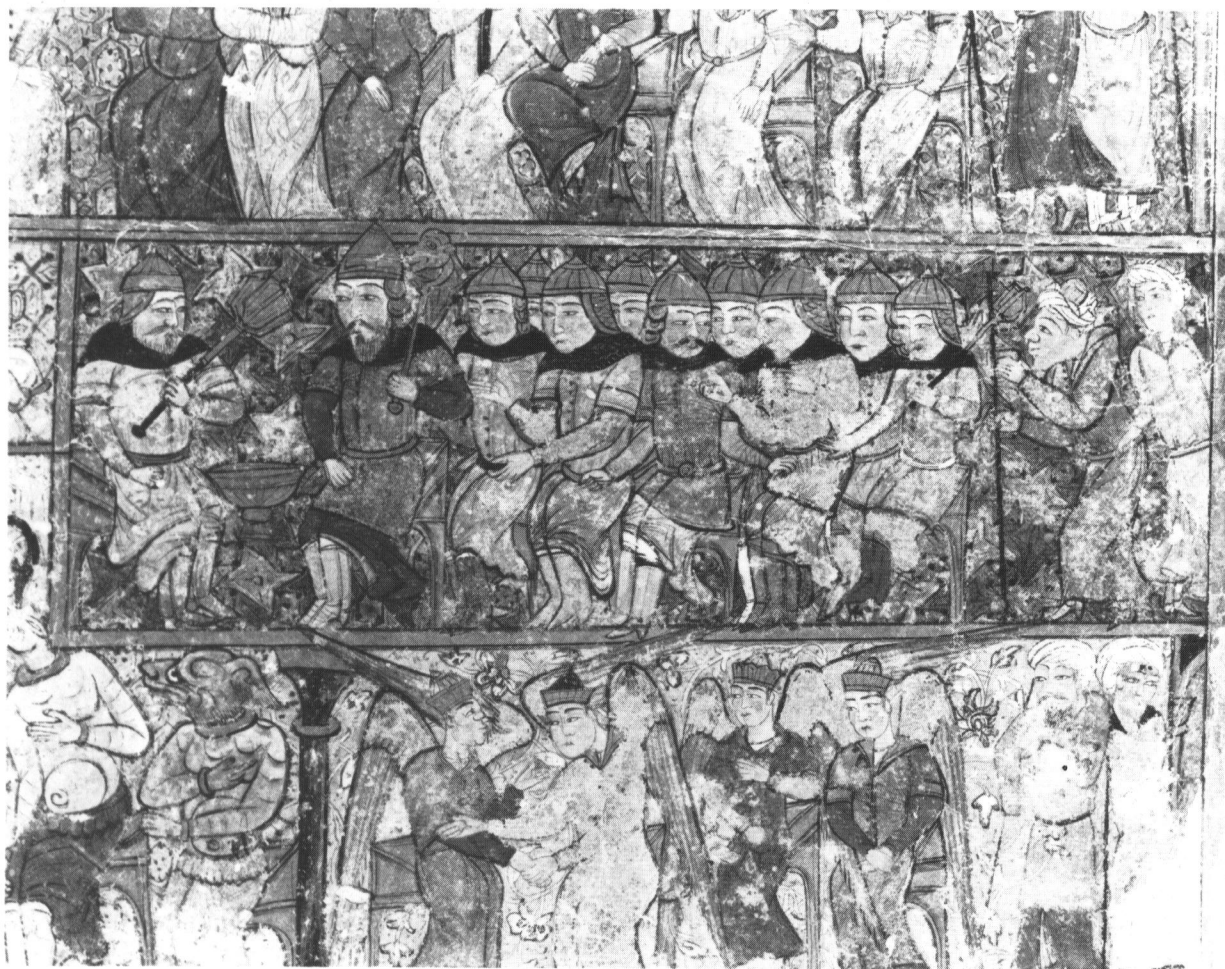
remained very effective against close-packed infantry.

On the open steppes Tartars used light two-wheeled carts. Their nomadic neighbours and occasional fellow-vassals, the Cossacks, used heavy four-wheeled waggons which could be tied together to form *taburs* defended by light artillery and infantry arquebusiers. The Cossacks also dominated the rivers of the Ukraine in their war-canoes.

Eastern Anatolia, though a vassal area, was more closely tied to the Empire. Its Kurdish chiefs had transferred their allegiance to the Ottomans after the battle of Çaldıran (1514). Thereafter they continued to govern as the hereditary *beys* of *hükümet sancaks*. Janissaries garrisoned their main towns and the Kurds answered the Sultan's call when summoned. Cavalry from Diyarbakir, for example, formed the vanguard of an Ottoman army in Europe in 1596.

Other Middle Eastern vassals rarely served as far

This panel from a manuscript of c.1500 is probably the oldest existing Muslim representation of Ottoman warriors. Made in Bursa for Bayezit II, it shows *sipahi* troopers wearing helmets, mail aventails, and in some cases, apparent armour over their feet. (*Sulayman-namah*, Ms. 406, F. 1V, Chester Beatty Lib., Dublin)



from their homes. Such were the autonomous Maronite Christians and Druze of Lebanon, the semi-autonomous Mamluks of Egypt and the tribes of Iraq, the Arabian Gulf coast and parts of Eritrea. Here Janissary garrisons were often the only symbols of Ottoman authority. Vassal areas were also a vital source of raw materials. Moldavia, Transylvania and Wallachia provided wood for musket-stocks, draft-horses, saltpetre, tin and rope. Kurdistan, Iraq and Lebanon provided *naft* (pitch), sulphur and saltpetre, to give just a few examples.

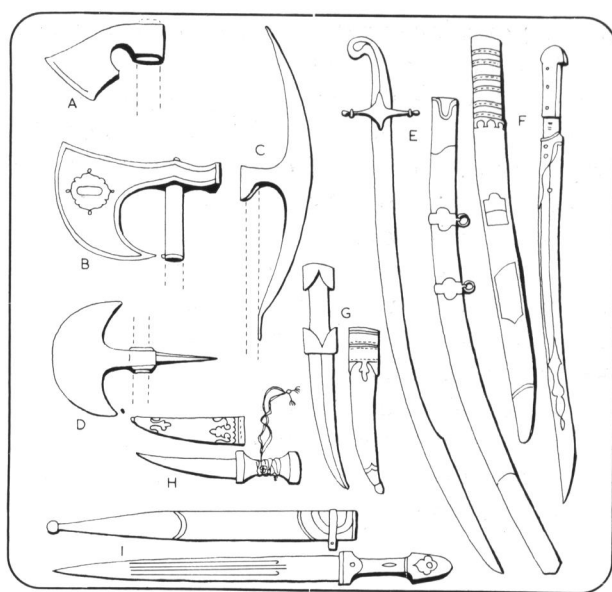
The Infantry

Ottoman infantry forces went by a confusing number of names, the meanings of which could change over the centuries. Among the first were the *azaps*. They began in the 14th century as marines, but were soon recorded as light-infantry archers whose task was to keep an enemy back until the regular troops had taken up formation. Most were Anatolian Turks and at first they were only paid for the duration of a campaign. Later they got regular salaries and also acted as garrison troops. From the 16th century all Muslim men of the frontier provinces were liable for conscription as *kale* (fortress) or *deniz* (naval) *azaps*, one man being summoned from every 20 or 30 households.

The *gönüllüyan* (volunteer infantry) who manned local strongpoints could be Muslim or Christian, and were similarly supported by their fellow villagers.

Voyniks were Balkan Christians. They are first recorded as the infantry followers of Christian *sipahis* fighting for Murat I. They were expected to be armoured, unlike their *yamak* (apprentice) squires, and formed *gönder* (flag-staff) units. Among the most effective were the Vlachs of Thessaly who, after fighting for the Byzantine Despot of the Morea against the Sultan's Christian *sipahis*, played a leading role in Mehmet II's army which captured Istanbul in 1453. *Voyniks* remained important well into the 16th century, at which time more than one in ten Christian households had such military obligations. They were reduced to non-combatant, though still highly paid and skilful, pioneer duties in the 17th century.

From the mid-16th century the rapid spread of firearms among the non-military or *reaya* classes was

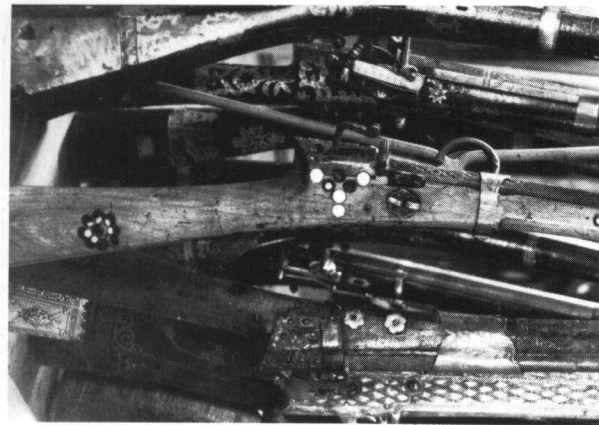


A Herzegovinian war-axe. B Turkish ceremonial balta. C Turkish tırpan. D Janissary nacak. E Turkish şinşir. F Turkish yatağan. G Albanian dagger. H Turkish bıçak. I Caucasian kindjal.

strenuously resisted by the Ottomans, though in the end unsuccessfully. Accepting the inevitable, the government turned it to advantage by enlisting armed Turkish peasants as auxiliaries. The increasing use of firearms by their European enemies also forced the Ottomans to recruit Christian huntsmen from Dalmatia, Albania and Bosnia by the 17th century. Such *reaya* villagers, Anatolian Turks or Christian Slavs, were normally formed into sharpshooter companies of *seğmens* and *saricas*, 50 to 100 strong. Many operated as mobile mounted infantry, and from around 1590 these musketeers were among the most effective units in the Ottoman army. The difference between *seğmen* and *sarica* is far from clear. The former were, however, numerous, regularly paid and properly organised as garrison troops with their own banners under their own *bölük başı* leadership.

The *levents* were more obscure. Their name may originally have meant pirate but it later referred to gangs of landless brigands who, when bribed into army service, kept their original title.

Tüfekçis had more honourable origins and were also far more disciplined. Armed with the latest *tüfek* arquebuses and muskets, they were skilled marksmen. Some were listed as mounted infantry in mid-16th-century Egypt, but most were infantry, organised in relatively small units under their *tüfekçi başı*.



Turkish matchlocks and muskets, 17th-18th centuries. (Army Museum, Istanbul)



Akçaabat castle on the Black Sea coast was built by the last Byzantine 'emperors' of Trabzon and was later restored by the Ottomans.

The Ottomans also enlisted men solely for local defence, often on a part-time basis. The Greek *martolos* were such warriors. Many had been mountain bandits or *klephts* until commissioned by the Turks to control their erstwhile comrades. Murat II first organised them on a regular basis at Agrapha. Fighting with accurate small-bore muskets, swords, pistols and daggers, these *martolos* were skilled in mountain guerilla warfare and were led by hereditary *kapitanos*. On rare occasions they also fought in distant regions; for example the 12,000 Epirot *martolos* who marched against Iran in 1635. The *kapoi* were another group of Greek warriors who protected Orthodox religious leaders, mostly in the Morea. Local auxiliaries in Syria were known as

'ashūr. They were recruited from towns, villages and bedouin nomads in times of emergency to follow local tribal, religious or government leaders without payment.

The *derbentçis* (guardians of the passes) were a further form of local militia. Although probably originating in pre-Ottoman times, they were not fully organised until the mid-15th century. Thereafter the *derbentçis* were recruited from local villagers, Muslim or Christian, to keep the roads free from bandits or raiders wherever the Ottoman writ ran, even among the Crimean Tartars. Twenty-five to 30 men would form a *derbentçi* 'battalion', though only five would serve at one time, they and their families being maintained by the rest.

Artillery and Engineering

The question of when the Ottomans first used firearms is still unanswered. The *tüfek*, in its Persian form of *tufenk*, is mentioned in a mid-14th century Turkish epic in the hands of Christians. By that date it seems unlikely to have meant a Greek Fire syphon (see MAA 89, *Byzantine Armies 886-1118*) and probably referred to a primitive hand-gun as used in Italy (see MAA 136, *Italian Medieval Armies 1300-1500*). These Italian *schiochetti*, like the *cerbottani* blow-pipes, sound similar to the Persian *zabānah* blow-pipe, a term which, by the 15th century, had become synonymous with *tüfek*!

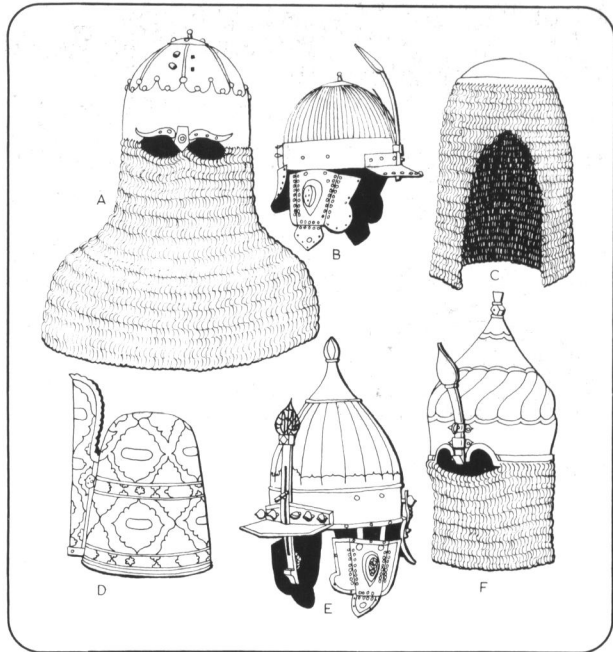
Guns were adopted by the Mamluks of Egypt and the Moors of Spain in the mid-14th century, before being accepted by the Turks; yet it was the Ottomans who, of all Muslims, used them with the greatest success. Cannon may have been used against Karamania in 1388 and at the battles of Kosova (1389) and Nikopol (1396). They were almost certainly used in sieges during the 1420s, while field artillery grew in importance from the 1440s.

The Balkans were an obvious source of Ottoman artillery. Venetian *sclopi* guns had been used in Dalmatia since 1351, while the Serbians imported medium-sized bombards from Venice or Dubrovnik in the 1380s before making their own in the 1390s. Skilled Balkan gun-makers, not all of whom became Muslim, were subsequently given *timar* fiefs by the Ottoman conquerors. Experts also came from further afield, including Urbanus of Transylvania whose huge cannon sealed the fate of Istanbul

in 1453. In the early 16th century many Jews, fleeing the Spanish Inquisition, brought the latest gun-making skills to the Ottomans. An early illegal arms trade from Italy and Hungary was later overtaken by Protestant English and Dutch, who became the Turks' major foreign suppliers.

The Ottoman Empire was, however, rich in raw materials and the Turks soon came to specialise in giant cannon that were larger than anything seen in Europe. Such weapons were normally cast on the site of a siege, as it proved easier to transport metal than huge gun-barrels. With a range of about a mile and firing balls of well over 1,000lbs, these great 15th-century siege-guns achieved a firing rate of ten shots per day. Accuracy was achieved by using wadded shot wrapped in sheepskins with ready-measured sacks of powder. Ottoman gunpowder was, in fact, better than European, producing white rather than black smoke. Crossfire, sequential shooting from spaced batteries, curtain barrages to precede an assault, illuminated range-markers for night bombardment, movable mantlet-like doors to protect artillerymen while reloading, pre-fabricated battery defences, and the use of medium cannon to weaken enemy fortifications before heavy guns delivered the final blow, were all techniques skilfully used by Ottoman gunners.

Even when not cast on-site, Ottoman gun-barrels were normally transported separately from their cumbersome carriages. This originally gave greater mobility but was an outdated technique by the 18th century. The names given to Ottoman cannon reflect various influences. The large *baçaluşha* was like a European 'basilisk'. The *balyemez* was a medium-weight, long-range weapon, probably from the German 'faule metze'. The *holonborna* was a culverin, from the Italian 'columbrina'. The *şahaloz* was a light gun, from the Hungarian 'szakállas', while the *şayha*, from the Hungarian 'sajka', could be of any size but was only used on river-boats. In the 16th and 17th centuries other terms appeared as the Ottomans followed developments in Europe. These included *saçma toptlar* (grape-shot) and *ağaç top* (petard). Fortified carts pulled by two mules carried a medium-bore cannon whose ammunition was stored beneath the waggon, which could itself be chained to its neighbour to make a *tabur* field-fortification. For siege warfare the Ottomans invented a wooden gun-platform which could be



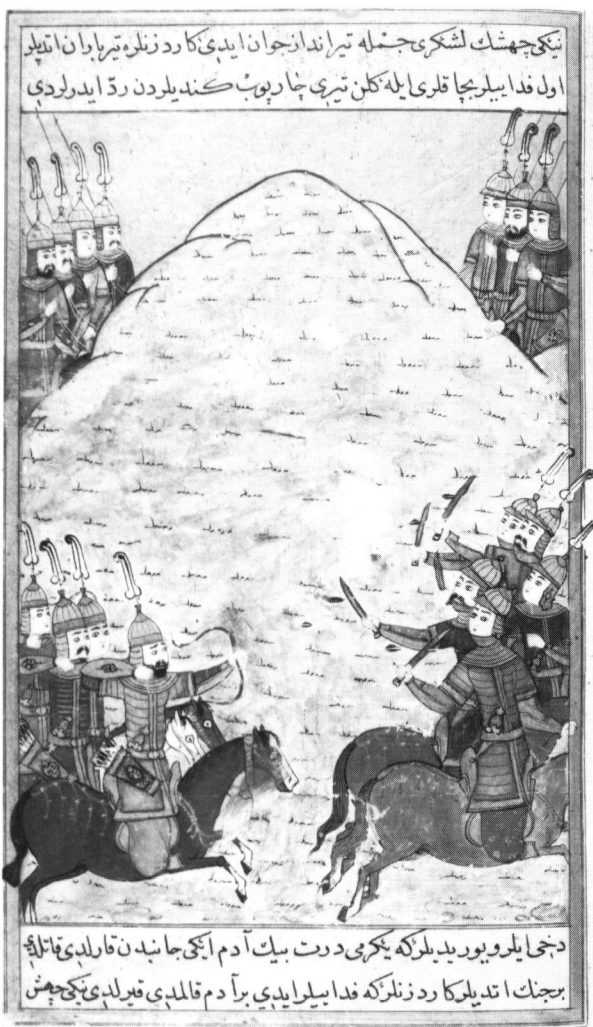
A Anatolian Turkish helmet, early 14th century. (Topkapı Museum, Istanbul) B Cavalry *çapak*, early 16th century. (Waffensammlung, Vienna) C Turkish *zirh külah*, 15th-16th century. (Met. Museum, New York) D Parade helmet of a *peyk* guardsman, 16th century. (National Museum, Munich) E Senior officer's *çapak*, mid-16th century. (Kunsthistorisches Museum, Vienna) F Turkish 'turban helmet', 15th century. (Private Coll.)

raised or lowered from behind an earthen embankment.

Most Ottoman artillerymen were part of the Kapikulu Corps, forming a separate *topçu ocağı* regiment created by Murat II out of the old *yaya* infantry. They both made and operated cannon. After the capture of Istanbul Mehmet II added a special transport regiment, the *top arabaçıları*, who made and operated gun-carriages, waggons and a special fleet of flat-bottomed boats on the Danube and Euphrates rivers. The gunners, or *topçular*, were then greatly increased by Bayezit II. Numbering a little over 1,000 in 1575, the *topçular* increased to 5,000 men in the 17th century.

The *humbaraçıları* mortar, bombardier, grenadier, mining and incendiary regiment, and the *lağımçıları* sappers and engineers, were also established before 1481. Both were allied to the artillery and formed part of the Kapikulu Corps. The *humbaraçıları* used *havayi* mortars, *humbara* bombs of glass or iron, and *humbarası* grenades of glass or bronze.

The Ottomans inherited the highly sophisticated Islamic siege-engineering tradition (see MAA 125, *The Armies of Islam 7th-11th Centuries*) and their



This fanciful late 16th century Turkish miniature of warriors deflecting arrows with their swords has the army on the right wearing peaked *çikaks* of Ottoman form. (*Kissa-i Ferruhruz*, Ms. Or.3298, F.203r, Brit. Lib., London)

sapping and mining techniques had more in common with those of the 1914–18 War than with the geometric siege-works of 15th- to 17th-century Europe. The *lağımçılar* designed the works and supervised unskilled labourers, conscripted miners and any available troops. They were also responsible for the laying and firing of *lağım* explosive mines. Saps and parallels were pushed forward behind mounds of earth which protected the men as they worked. Trenches were deeper and broader than those of Europe, with fire-steps and sandbag or turf embrasures. Artillery emplacements were set up behind the first or second parallels, often on artificial hillocks, while musket batteries defended

the ends of each parallel. The lengths of planned mine-shafts were gauged by surface-strings laid at night, while candles suspended from the ceiling kept the tunnels straight. The low working chambers in which Turkish miners dug, sitting cross-legged, made their explosive mines yet more effective.

The Struggle for Military Reform, 17th to 18th Centuries

The Ottoman defeats that began early in the 17th century were not caused by lack of determination, nor by ignorance of military developments in Europe. The Turks wanted, in fact, to acquire the latest weapons and to see the latest fortifications. What they lacked was the experience to make full use of such advances. Ottoman willingness to learn is seen in the pages of Ibrahim-i Peçevi, the 17th century historian who, far in advance of his European contemporaries, compared Turkish and enemy accounts before weaving his own narrative. Numerous foreign military experts were also hired, including Dutch and English engineers and Italian cannon-makers. The *tayfa-i efrenkiye*, or Corps of Europeans, soon became a recognised part of the Ottoman army; but while the Turks managed to copy their enemies, they always remained behind the times.

Declining military discipline was even more serious. The Kapikulu Corps got hopelessly involved in politics; economic crises undermined the *timar* system, and the *sipahis* could no longer maintain themselves. All sorts of non-military people bought their way into the privileged Janissary regiments which, after 1648, no longer recruited via the *devşirme* system. Various Sultans attempted to crush corruption, remove incapable leaders and weed out untrained troops. These efforts to return to an earlier purity often enabled the Ottomans to defend themselves successfully, but they all petered out once an immediate danger had passed.

By the 18th century, however, many Turks realised that reactionary reforms were inadequate.

Change must now follow the European example, and three personalities dominated this second phase of reform. The first was Claude Alexandre, Comte de Bonneval, who entered Ottoman service and took the name of Ahmet. He revived the old *humbaraçi* mortar regiment and turned it into a modern field-artillery unit. He also set up new workshops, factories, training grounds, drill, engineering and gunnery schools. Bonneval's efforts to re-organise the Janissaries into smaller units trained to operate independently led to success at Grocka in 1739, but then lapsed.

The second reformer was another Frenchman, this time of Hungarian origin, the Baron de Tott. His work, including the establishment of a *süratçı* (rapid-fire) artillery regiment and the revival of Bonneval's defunct military schools, had only just begun when the Ottomans suffered a humiliating defeat by Russia in 1774. De Tott worked closely with the third great military reformer, Gazi Hasan Paşa. By personal example and ruthless determination, this hero of the Turkish navy's fight against the Russians forced his compatriots to swallow their pride so that even 'white-bearded captains' were seen earnestly studying under De Tott's teachers.

This time the effort at modernisation took root and enabled the Ottoman Empire, the so-called 'Sick Man of Europe', to survive for another century and a half.

Arms, Armour, Fortification and the Fleet

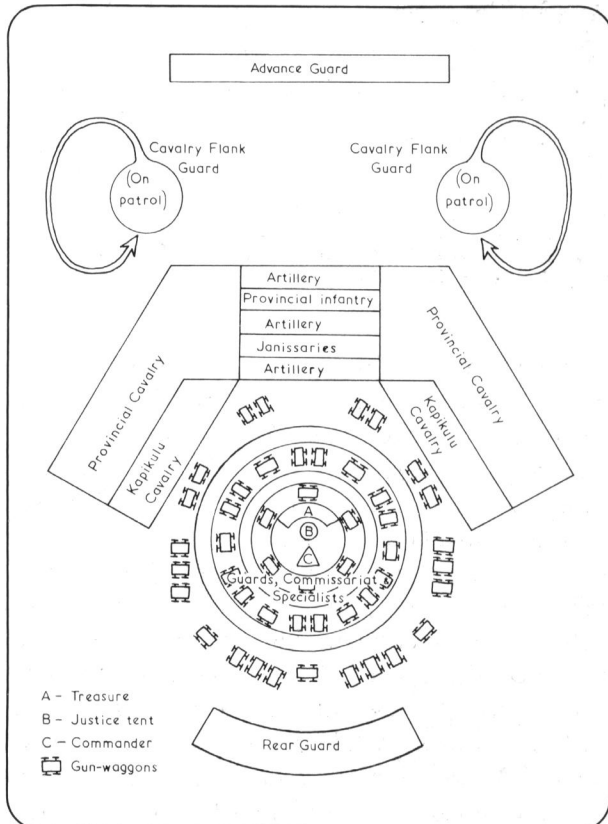
At one time Iran was thought to have been the greatest influence on Ottoman arms and armour; but now it seems that Iranian fashions had, since pre-Islamic times, themselves been under persistent Central Asian Turkish influence. The Ottomans were naturally also affected by Byzantine and eastern European traditions, but here again the influences of Turkish nomadic peoples had been felt since the late Roman era. Paradoxically, it might be that Ottoman arms and armour represented the coming together of many separate Turkish or Turcified strands.



Ottoman *yataghan*s, 18th-19th centuries. (Tower Armouries, London)

Apart from capturing Islam's Arab heartland, the Byzantine Empire and huge quantities of war-gear from both Iranians and Europeans, the Ottomans also engaged in a lively arms trade. Materials flowed freely across the Black Sea and along the great rivers of eastern Europe. Records,

Schematic layout of an Ottoman encampment while in enemy territory, based on Marsigli's drawings of Kara Mustafa's camp at Brandkirken, 1683.



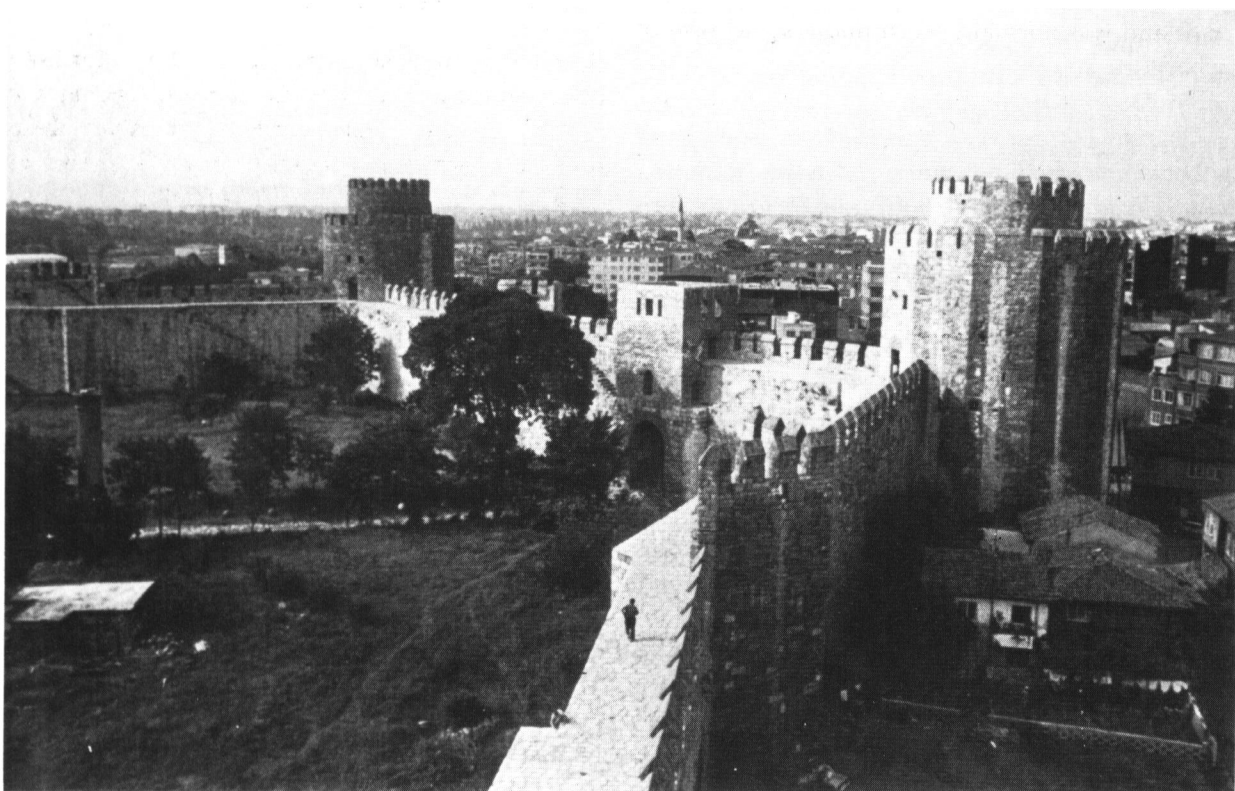
for example, show that between 1484 and 1502 alone weapons and armour were bought from and sold to Transylvania, Hungary and Wallachia, swords and sabres came from both Poland and Hungary, and Muslim horse-harness was sent to Poland while Russian harness went to Turkey. Ottoman trade with western Europe was more circumspect, but remained flourishing enough for Clement VII to try and halt it with a Papal Bull in 1527. In later years Protestant countries took over this trade. The English in particular sold firearms, lances, cuirasses, plus broken Catholic statues and bells to be melted down for cannon. In 1605 one English merchant vessel was intercepted by Catholic warships off Melos and was found to be carrying to Istanbul 1,000 arquebus barrels, 500 completed arquebuses, 2,000 sword-blades, 700 barrels of gunpowder and various other items.

Nevertheless, the Ottomans still manufactured the bulk of their own equipment. Supreme craftsmen like Üstad Sinan, Mehmet Sunqur, Ağa

The Yeni Kule (New Citadel) reinforcing the Golden Gate of Istanbul's Byzantine walls. It was built in 1458 and is one of the earliest known star-shaped castles.

Oğlu, Hayruldin ibn Hasan and Hacı Ali Sunqur were now making swords that were admired throughout the Muslim world. Four main types were used by Turkish warriors: the *kiliç* sabre, which was broader, shorter and less curved than the Iranian form; the *palyoş*, a still shorter and less curved sabre which was sometimes double-edged; the *şimşir*, a regularly tapering Iranian sabre; and the *yatağan* short-sword. This last was a very characteristic Turkish weapon which had a short reverse-curved blade and no quillons.

One of the earliest Turkish sources from Anatolia is the mid-14th-century epic '*Danişmandname*'. This lists a warrior's weapons as *külüink* war-hammer, *gürz*, *çomak*, *bozdoğan* and *amud* maces, *bilik* quiver, *çark yayı* infantry crossbow, *gönder* javelin, *hançer* short-sword, *harbe* pike, *kiliç* sabre, *nize* light spear, *sünü* lance, *terkeş* quiver, *tiğ* sword-blade, *ok* arrow, *yayın* bow, *kirban* bow-case, *nacak* war-axe and *kement* lasso. By the early 17th century normal weaponry had been reduced to the *mızrak* cavalry spear (originally a javelin), the *hişt* infantry javelin, the *cirit* cavalry javelin, the *topuz* mace and the *tirpan* infantry glaive.

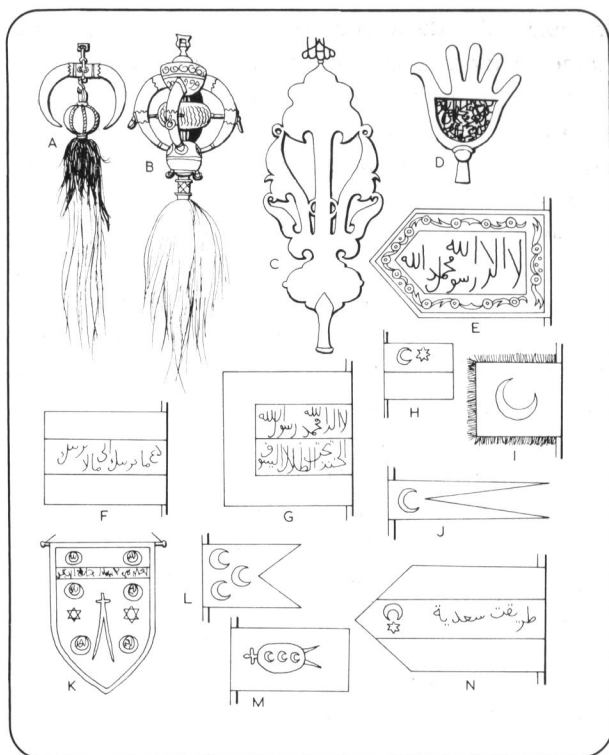


Early in the 14th century a European observer described Anatolian Turks as having only leather lamellar armour, whereas a Turkish poet, referring to a tribal hero possessing the best available weaponry, boasted of his iron armour, helmet and separate arm and leg defences. By the mid-14th century such equipment is listed as *budluk cuisse*, *cebe hauberk*, perhaps padded, *cevşen* lamellar cuirass, *cebe cevşen* which was perhaps an early form of mail-and-splint cuirass, *kalkan* shield, *çukal* lamellar or scale armour, *işik* and *tuğulka* (crested) helmets, *kolluk* vambrace, *pirahen ahenin* scale-armour or full-length lamellar cuirass, *zırh* mail hauberk and *zırh külâh* mail coif.

The so-called turban helmet, which may have been worn over a separate padded arming cap, reached its full development in the 15th century. Its full mail aventail protecting the face as well as the neck was typical of an army in which archery predominated. Other small helmets with integral linings tended to be similarly tall and it was from these that the Ottoman *çiçak* developed. It was, in turn, from this that German *zischägge* and English 'lobster-tailed pot' helmets evolved in the 16th and 17th centuries. The *zırh külâh* now incorporated a small shallow steel bowl to protect the top of the head, and was normally worn under some form of turban.

The Ottomans made greater use of mail-and-plate armour than did the Egyptian Mamluks or the Iranians. This form of construction probably developed out of laced lamellar armour. Very different shapes of mail-and-plate protections were made for infantry and cavalry. During the 16th century, however, infantry armour was virtually abandoned. A solitary exception was the *kazarğand*, a fabric-covered and lined mail shirt which continued in use until the late 17th century. It was light, comfortable and inconspicuous. The *korazin* was a 16th-century *sipahi* armour whose name strongly suggests European origins. This *korazin* was, however, a distinctively Ottoman protection consisting of large steel plates connected by mail to form an exceptionally supple armour. The *zırh* mail shirt, *kolluk* vambrace and *kalkan* shield were still used by 17th-century cavalry, as was horse-armour.

The Ottoman habit of razing the walls of most cities they captured in Europe during the 14th and 15th centuries left a widespread impression that



A, B Two horse-hair *tuğs* with boars' teeth crests. (Arsenal, Vienna) C Brass standard. (Army Museum, Istanbul) D Bronze battle-standard. (Topkapi Museum, Istanbul) E-N Standards, flags and pennons. (Arsenal, Rathaus and Kunsthistorisches Museums, Vienna. After R. Nour, 'L'Histoire du Croissant', *Revue de Turcologie* I/1933)

they had no interest in fortification. This is far from true. While the Ottomans did turn Edirne, Plovdiv and Sofija into open cities to prevent them becoming centres of rebellion or bases for European Crusades, they strengthened Istanbul's defences by building the Yeni Kule (Seven Towers fort) in 1458. Otherwise Ottoman fortifications were built as part of a blockade during prolonged sieges, as at Bursa and Istanbul; to guard a vulnerable bottleneck during Ottoman advances, as at Gelibolu; or to provide secure storage depots near a frontier. The majority of Ottoman fortresses were of the latter type. Consequently they looked insignificant beside the palatial keeps of Europe. They housed neither landed aristocracy nor even provincial governors, and consisted merely of military defences surrounding flimsy wooden barracks and store-houses.

More ambitious fortifications were, however, built to plug those great Russian rivers that flowed into the Black Sea, and so to keep it an Ottoman lake. Azov, on the Don estuary, had a stone wall, eleven towers, ditch, ramparts and a 4,000-strong

garrison. The difficulty of transporting large armies to the Iranian frontier encouraged the Ottomans to build large fortresses in that area during the late 16th century at Kars, Erivan (which had a double wall and 51 towers) and Tabriz. In the Balkans and along the Anatolian coast the Ottomans inherited many castles recently repaired in the hope of halting the Turkish advance. All were in Byzantine or Italian style and many, like Argos in the Morea, were immediately strengthened by their new conquerors. The Ottomans generally continued to build in a Byzantine tradition, though adding stronger towers in the Arab-Islamic style. A maritime threat from Venice led to the building of coastal defences; but along the Danube and Carpathian frontiers the Turks did little except maintain the superb fortifications that had been built by the Hungarians at Esztergom, Budapest, Beograd (Belgrade) and Timișoara.

When the Ottomans were forced onto the defensive in the late 16th and 17th centuries, they introduced simple, speedily assembled but very effective wooden fortifications called *palankos*. These could range from simple wooden watch-towers to citadels with curtain-walls, all of timber. The most impressive *palankos* had a double-stockade filled with earth, the two walls tied together by timber transverse beams. Similarly earth-filled corner towers each carried two cannon. Some towns were defended in this manner, but most *palankos* were sited in open country. Major improvements in artillery and siege-engineering forced the Ottomans to copy their enemies' fortifications in the late 17th and 18th centuries. Those of Beograd, for example, were now virtually identical to comparable European defences.

European influence on the Ottoman navy was of longer standing, but this is hardly surprising as the Ottomans were a major European sea-power. They inherited eastern Mediterranean Byzantine and Saracenic naval traditions which had, for centuries, been almost identical to those of Italy and the western Mediterranean. The fleet's primary role was to transport land forces and support them, where possible, by coastal bombardment. It also defended the vast Ottoman coastline and controlled those numerous off-shore islands which had been havens for Christian pirates.

The capture of Imrali island in the Sea of

Marmara (1308) may have been the Ottomans' first seaborne venture, but the occupation of the Karasi emirate on the Dardanelles made them into a minor naval power. They took over a small fleet built and crewed by ex-Byzantine sailors and manned by *gazi* warriors. Yet the Ottomans' lack of a substantial navy left their Balkan conquests vulnerable throughout the 14th century, and not until the mid-15th century did Turkish ships confront the Venetians, whose coastal possessions still dotted the eastern Mediterranean.

Murat II then built a fleet which, in 1430, helped capture Venetian-held Thessaloniki. In 1456 Genoese piracy led the *azap* marines, Christian rowers and crossbowmen and 60 ships of the new navy to seize Enez and the islands of the northern Aegean. By 1470 the Turkish war-fleet had risen to 92 galleys, which now dominated the Black Sea also. Within a few years the whole fleet, galleys and transports, numbered around 500 ships, and during the 1499–1502 war with Venice Ottoman yards launched two great ships of 1,800 *tonilato*, the largest yet seen. The Turks had also been using guns at sea since 1421 or 1430.

It was firearms that enabled the outnumbered Ottomans to maintain Muslim control of the Red Sea, parts of the Arabian Gulf and Indian Ocean, as well as to contain the threat of a Portuguese-Ethiopian alliance. Portuguese penetration of these waters had forced the Egyptian Mamluks to request Ottoman technical help in modernising their own Red Sea fleet in 1511. This was inherited by the Turks in 1517. In 1525 they also rebuilt the naval base at Suez, and five years later the Ottomans added a dockyard and naval squadron at Basra in the Arabian Gulf.

After Bayezit II's victories over Venice in the eastern Mediterranean, the Ottomans attempted to challenge French and Spanish domination in the west. A developing alliance with, and ultimate annexation of, Algeria and Tunisia greatly strengthened the Ottoman navy. Meanwhile, Turkish shipwrights, though still following European models, began adding improvements of their own. Ottoman map-makers like admiral Piri Reis could also stand comparison with the best in Europe.

The fleet was financed by the maritime *sançaks* of Al-Cezayir (the Aegean islands and Gelibolu), Galata, Izmit and Algiers. Galley sailors, called

levants, were recruited from coastal Turks, Greeks, Albanians, Dalmatians and North Africans, while the *kürekçiler* (oarsmen) included criminals and prisoners-of-war. Sailors specialising in all-sail ships were at first called *aylakçiler* and later *kalyonçiler* (galleon men).

Little changed in the 17th century. The Mediterranean fleet now consisted of three squadrons based in North Africa, Egypt and the Aegean. But a serious decline did set in with financial corruption in the Istanbul naval yards and the loss of direct control over Algeria and Tunisia. The North African corsairs remained a formidable force, even on their own. They ventured far beyond the Mediterranean and even raided Iceland in 1627. Their reputation was also high in the east where, in Syria, such *maghāribah* (westerners) were first recruited as marines in the 17th century.

The failure of their navy to wrest control of the Mediterranean from the combined maritime might of Christian Europe was the Ottomans' first and most crucial military setback. By the late 18th century the Ottomans even had to buy warships from foreign yards. Nevertheless, within more limited horizons the Ottoman fleet continued to enjoy some successes. The navy was re-organised into smaller squadrons under *derya beys*. A proper chain of command, payment and pension structures were instituted, and the fleet got its own gunnery corps separate from the Kapikulu artillery on which it had previously relied. The Ottoman navy certainly showed itself to be in better shape than the army. After a crushing defeat by the Russians at Çeşme in 1770, the fleet, under Gazi Hasan Paşa, came back within a year to recover the island of Limnos and to frustrate enemy attempts to seize the isles of Rodos and Evvoia.

Bronze cannon, 17th-18th century. (Topkapi Museum, Istanbul)



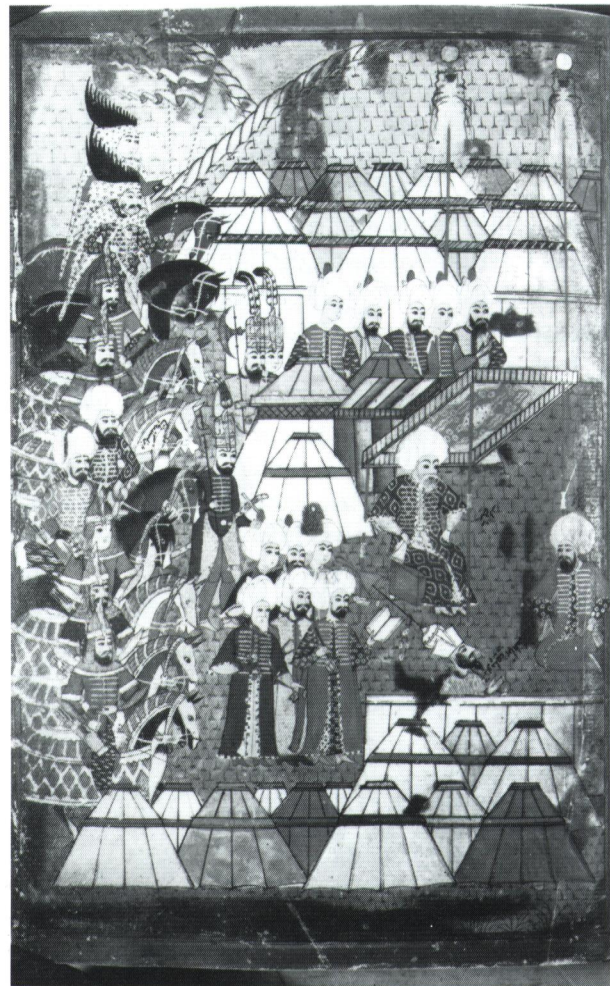
Chronology of Ottoman Conquests and Losses

(Battles described in the text are in *italics*)

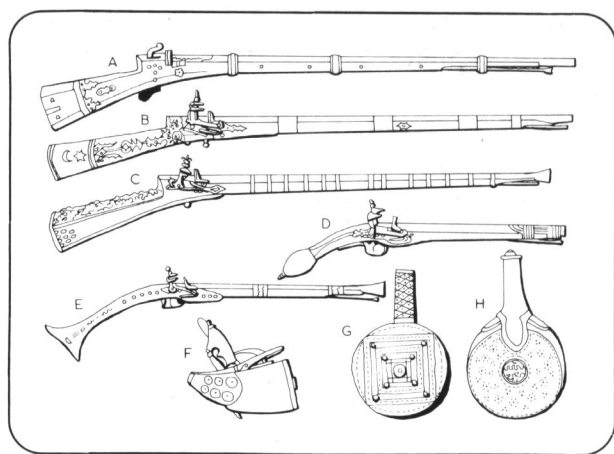
- | | |
|---------|--|
| c.1280 | Death of Ertuğrul (?). Osman I becomes Bey (commander) of nascent Ottoman province, subsequently asserts autonomy as Emir (governor). |
| 1301 | <i>Victory at Koyunhisar (Bapheon).</i> |
| 1326 | <i>Capture of Bursa.</i> Orhan Gazi becomes Emir. Ottoman capital moved to Bursa. |
| 1338 | Capture of Üsküdar. |
| 1345 | Occupation of Emirate of Karesi. |
| 1353-54 | Occupation of Çimpe and Gelibolu, first Ottoman possessions in Europe. |
| 1359 | Murat I becomes Emir. Occupation of Ankara. |
| 1361 | Conquest of Edirne. |
| 1364 | <i>Victory on River Marica.</i> |
| 1365 | Ottoman capital moved to Edirne. |
| 1371-76 | Conquest of western Thrace and Macedonia. |
| 1376 | Bulgaria becomes vassal. |
| 1388 | Dobruja becomes vassal. |
| 1389 | Ottoman victory over Serbians at Kosova. Bayezit I becomes Emir, subsequently asserts independent sovereignty as Sultan. Serbia and Bosnia become vassals. |
| 1390 | Conquest of Emirates of Sarahan, Aydin, Mentese, Hamit, Germiyan, Teke, and part of Karaman. |
| 1391 | Wallachia becomes vassal. |
| 1392-98 | Conquest of Emirates of Konya, Sivas and Kastamonu. Conquest of Thessaly. |
| 1396 | Defeat of European Crusade at Nikopol. |
| 1397 | Byzantine 'Empire' of Istanbul (Constantinople) becomes vassal. |
| 1402 | Timurlenk (Tamerlane) invades Turkey. <i>Ottoman defeat at Ankara.</i> Most Turkish Emirates regain independence. Balkan states abandon vassaldom. Fragmentation of Ottoman state: Süleyman ruler in Edirne, Isa in Bursa, Mehmet in Amasya. |

1413	Re-unification under Mehmet I as Sultan.	1519	Algiers seeks status of vassal.
1413-24	Byzantine Istanbul, Serbia, Wallachia and Bosnia again vassals.	1520	Süleyman I becomes Sultan.
1421	Murat II becomes Sultan.	c.1520-40	Occupation of Zaila.
1426-59	Re-occupation of Turkish Emirates.	1521	Conquest of Barqa.
1430	Dubrovnik becomes vassal.	1522	Capture of Rodos.
1431-33	Occupation of Epirus and southern Albania.	1526	Hungary becomes vassal.
1444	Defeat of European Crusade at Varna.	1529	First Ottoman siege of Vienna.
1446	Byzantine 'Despotates' of Morea become vassals. Bulgarian princes deposed, Ottoman direct rule imposed.	1533	Conquest of Armenia and northern Iraq. Algeria becomes vassal.
1448	Defeat of European Crusade at Kosova.	1534	Conquest of Tunis.
c.1450	Conquest of Byzantine islands in north-eastern Aegean.	1535	Loss of Tunis.
1451	Mehmet II becomes Sultan.	1538	Conquest of southern Bessarabia. Conquest of Yemen coast and Aden. Southern Iraq becomes vassal. Fleet sent to help Indian Muslims against Portuguese.
1453	<i>Capture of Istanbul (Constantinople).</i>	1540	Conquest of Venetian possessions in
1454-55	Conquest of southern Serbia.		
1456	Conquest of northern Aegean islands.		
1458-60	Conquest of Morea.		
1461	Conquest of Byzantine 'Empire' of Trabzon.		
1464	Bogomil rising helps conquest of Bosnia and Herzegovina.		
1468	Conquest of northern Albania.		
1471-79	Conquest of most southern Aegean islands.		
1472	Conquest of Emirate of Karaman.		
1475	Khanate of Crimea becomes vassal.		
1481	Bayezit II becomes Sultan.		
1484	<i>Capture of Kiliya and Belgorod-Dnestrovskiy (Akkerman).</i> Moldavia becomes vassal.		
1499-1501	Capture of Venetian ports in Albania and Morea.		
1511	Defeat of Iranian-inspired Kizilbaş rising in Turkey.		
1512	Selim I becomes Sultan.		
1514	Invasion of Iran. Azerbaijan occupied.		
1515	Conquest of Malatya. Kurdish Emirs of eastern Turkey become vassals.		
1516-17	Conquest of Mamluk Sultanate: occupation of Cilicia, Mosul, Syria, Lebanon, Palestine, Jordan. <i>Victory at Raydaniyah</i> : occupation of Egypt and Nubia. Al Wahat and Hijaz become vassals. Şerif of Mecca and Medina recognise Ottoman suzerainty.		

'The Ottoman army in Georgia', painted 1582. On the left are *delis*, *kapikulu* cavalry and *sipahis*. (Nusretname, Ms. Add 22011, f.199v, Brit. Lib., London)



1541 Morea. Venice becomes vassal for Crete and Cyprus.
 Occupation of Hungary. Transylvania becomes vassal.
 1547 Conquest of Yemen interior. Occupation of southern Iraq.
 1550 Occupation of Bahrayn.
 1551 Conquest of Tripolitania.
 1552 Portuguese driven from Muscat.
 1557 Occupation of Eritrean ports.
 1566 Selim II becomes Sultan. Conquest of last Genoese islands in Aegean.
 1567 Loss of Yemen.
 1568 Re-conquest of Yemen. Fleet sent to help Muslims of Indonesia against Portuguese.
 1571 Conquest of Cyprus. Naval defeat at Lepanto.
 1574 Murat III becomes Sultan. Re-occupation of Tunisia.
 1576 Morocco becomes vassal (temporarily).
 1576–79 Conquest of western Georgia and Abkhazeti.
 1578–87 Conquest of western Iran.
 1586–89 Occupation of southern Somali and Kenyan ports.
 1591 Occupation of Gulf coast of Arabia.
 1595 Mehmet III becomes Sultan.
 1603 Ahmet I becomes Sultan. Loss of Georgia, Azerbaijan and western Iran.
 1617 Mustafa I becomes Sultan.
 1618 Osman II becomes Sultan.
 1622 Mustafa I restored as Sultan.
 1623 Murat IV becomes Sultan.
 1631 Loss of Yemen interior.
 1640 Ibrahim becomes Sultan.
 1648 Mehmet IV becomes Sultan.
 1657 *Venetian blockade of Dardanelles broken.*
 1669 Conquest of Crete. Loss of Arabian Gulf coast.
 1672 Conquest of Podolya.
 1676 Cossack Ukraine becomes vassal.
 1681 Ukraine throws off vassaldom.
 1683 *Defeat at Vienna.*
 1684–86 Loss of northern and central Hungary, Wallachia and Transylvania to Austria.
 1687 Süleyman II becomes Sultan. Loss of



A Turkish matchlock smooth-bore. B Caucasian rifled musket.
 C Turkish rifled musket. D Turkish flintlock pistol. E Albanian blunderbuss. F Caucasian primer-flask. G Kurdish powder-flask. H Turkish powder-flask.

southern Hungary and Serbia.
 1683 *Defeat at Vienna.*
 1684–86 Loss of northern and central Hungary, Wallachia and Transylvania to Austria.
 1687–99 Loss of Dalmatia, Morea and Athens to Venice.
 1689–90 Re-conquest of Serbia and southern Hungary. Wallachia and Transylvania rebel against Austrians. Wallachia again Ottoman vassal.
 1691 Ahmet II becomes Sultan.
 1694 Loss of Chios to Venice.
 1695 Mustafa II becomes Sultan. Chios rebels against Venetians, returns to Ottomans.
 1696 Loss of Azov to Russians.
 1699 Loss of Podolya.
 1703 Ahmet III becomes Sultan.
 1715 Re-conquest of Morea.
 1717 Loss of northern Serbia and southern Hungary to Austrians.
 1723–25 Conquest of Georgia, Azerbaijan and Sirvan.
 1730 Mahmut I becomes Sultan.
 1730–35 Loss of Georgia, Azerbaijan and Sirvan.
 1739 *Victory at Grocka.* Re-conquest of Azov.
 1754 Osman III becomes Sultan.
 1757 Mustafa III becomes Sultan.
 1774 Loss of Azov to Russians. Abdulhamit I becomes Sultan.

Campaigns and Battles

Bursa, 1301–1326

On 27 July 1301, the Byzantine heterach Muzalon ambushed an Ottoman raiding party in a steep valley near Koyunhisar with a force of 2,000 men, mostly Alan mercenaries who fought as heavy cavalry. Uncharacteristically, the Ottomans charged the Byzantine line, which suggests they were trapped on their way home. Muzalon's force crumbled and was only saved from disaster by the arrival of some Slav infantry. Thereafter the Byzantines were largely confined within Izmit.

The following year Byzantium's Slav infantry returned to the Balkans, having not been paid. Nevertheless, the Ottomans made no effort to follow up their advantage until 1308. An ambitious campaign then captured Akhisar, and threatened

Byzantine communications by seizing Imrali island and cutting the road between Iznik and Izmit. Other advances down the Sakarya valley also cut the Byzantine-held Black Sea coast. But an attack on Bursa failed.

A second effort was directed against Bursa in 1317. The Ottomans were not strong enough to take the city, but forts were built or repaired near the Çekirge hot-springs and on the foothills of Uludağ (Mt. Olympus) severing Bursa's links with other Byzantine territory. In 1321 the city's isolation was completed by the capture of Mudanya. The garrison held out for five years more before surrendering to Orhan who, it is said, was accompanied by Hacci Bektaş. While the Byzantine governor returned to Istanbul, his military commander entered Ottoman service as Gazi Evrenos.

Sirpsindiği, 1364

The Ottoman foothold in Europe was still vulnerable, but their conquest of Edirne in 1362 cut the strategic road from Europe to Istanbul. This, plus the rapid colonisation of Thrace by Turkish settlers, stirred Christendom into action. A Crusade of perhaps 20,000 men was assembled by King Louis of Hungary, Kral Urosh V of Serbia, Vukašin of Bulgaria, the Byzantine Despot of Uglješa and the princes of Wallachia and Bosnia. Its leaders were advised by the Byzantine governor of Plovdiv, who had just lost his city to the Turks.

Ottoman forces in Europe under Lala Şahin numbered perhaps 12,000 men. The Emir Murat ordered Şahin to slow the enemy advance, while he subdued the descendants of the Catalan Great Company who still held Biga near the Sea of Marmara. Lala Şahin could gather only 10,000 of his troops, and these he sent under Hacci Ilbeki to stop the Crusaders crossing the Marica river.

The Crusaders advanced more quickly than expected, however, and forded the river at Svilengrad. Less than two days' easy march from Edirne, they made camp on the hills overlooking the river and road. Confident that Edirne now lay at their mercy, the Crusaders feasted. Despite his numerical inferiority, Ilbeki led his predominately light cavalry army in a sudden night attack on the enemy camp. He achieved total surprise and the Christians fled down towards the road. There many tried to swim the broad Marica, but this seems to have been

The massive Hungarian fortifications of Sibiu in Rumania date from the 15th century, and they served the Ottomans well for a further two hundred years.



in flood. Thousands drowned, including King Vukašin of Bulgaria. According to legend he was rescued by a Turkish maiden whose brother then slew the king and stole his jewelled sword. This was later retrieved by Kraljević Marko, the Mac- edonian folk-hero who was then in Ottoman service.

Ankara, 1402

The battle of Ankara was between an Ottoman force, at least a third of whom were infantry, plus *sipahi* cavalry and some Tartar auxiliaries, and the larger force of Timur which fought in the same Central Asian horse-archery tradition followed by the Ottomans' own ancestors. The sizes of the two armies are reliably estimated at 140,000 on Timur's side and no more than 85,000 under Sultan Bayezit I. Both enjoyed recent records of success.

Bayezit took up a strong defensive position behind a stream and along low hills defended by his Janissary and *azap* infantry. The Rumeli and Anatolian *sipahis* stood to their left and right. Timur's army first attacked the *sipahis* of Rumelia on the Ottoman left wing, then the Serbian vassal contingent which formed the second line on the Ottoman right. The Serbs repulsed Timur's cavalry but, while trying to pursue them, lost cohesion and fell back, abandoning their original position to the enemy. Bayezit's Tartar auxiliaries then changed sides and also attacked the Ottoman left wing, where the Rumeli *sipahis* began to waver. Some Ottoman reserves under Mehmet Çelebi charged the traitorous Tartars, but the Ottoman left had slowly to give ground.

Turcoman contingents from the recently conquered Anatolian emirates, forming the bulk of the Ottoman right wing, now also deserted to Timur, thus leaving the Janissaries and *azaps* exposed on both flanks. Judging the battle lost, the remaining Ottoman reserves fled with the Sultan's heir, Süleyman. Bayezit decided to join the Serbs with his infantry and cover his son's escape. He chose the hill of Çatal, where six remaining squadrons from the Ottoman right were already making a stand. Timur's troops surrounded this hill but their assaults were beaten back. When night fell Bayezit and some 300 cavalry broke out eastwards, but the Sultan's horse fell and he was captured.

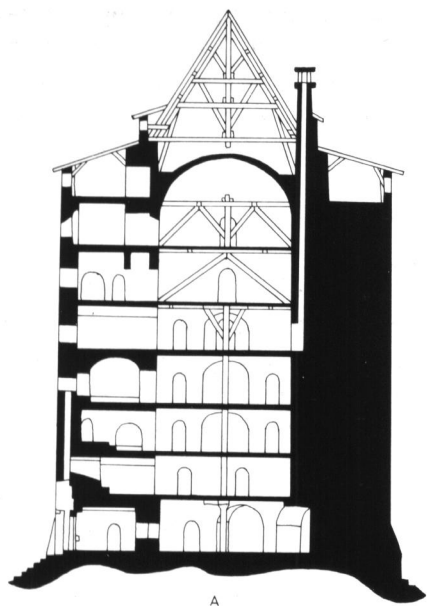


'Abbas Ali in the river Euphrates'. Turkish miniaturists were often more concerned with realistic details than were the artists of Iran. This painting of c.1600 shows Arab warriors like those who served as Ottoman auxiliaries. (Hadikat üs-süada by Fuzûlî, Ms. Or. 12009, F.233r, Brit. Lib., London)

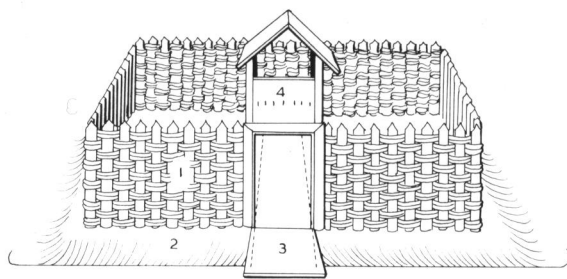
Istanbul, 1453

The Ottomans set up their guns facing the walls of the prize they called Kizil Elma, the Red Apple, on 11 April. A total of 69 guns formed 15 batteries facing the city gates or firing across the Golden Horn. Five had four small guns, nine had four small and one large. The final battery, near the Sultan's tent opposite the St. Romanus Gate, would ultimately include the three great-guns, although at first two were sited facing the present Egri and Edirne Gates to the north.

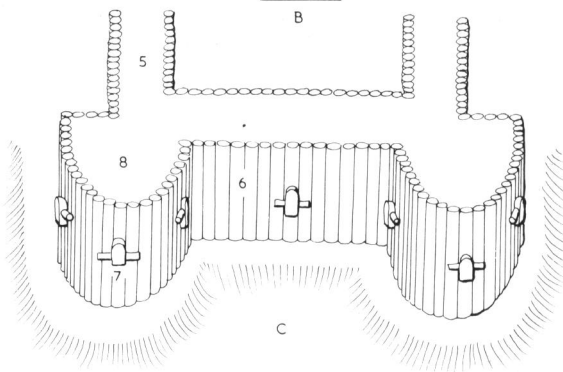
The great-guns fired shot of 1,200 to 1,500lbs, while the smallest shot balls of around 250lbs weight. All were set up on wooden cradles with shock-absorbing timber or stone bulwarks behind. They were loaded with powder, a wooden wad, a



A



B



C

A Section (reconstructed) of the Rumeli Hisari, 1452. (After Gabriel) **B Palenko-style watch-tower: 1-timber and wattle fencing; 2-ditch; 3-drawbridge; 4-turret with musket-embrasures. (After Marsigli)** **C Corner of a palenko-style fortification: 5-earth infill; 6-timber curtain-wall; 7-transverse strengthening timbers; 8-base of gun-tower. (After Marsigli)**

stone shot and finally priming powder. Opening fire on 12 April, the Ottoman cannon maintained their barrage for 40 days, firing some 19,320 times (approx. 3,231 tons of shot). With only its second ball the biggest gun brought down a five-foot wide section of wall. Problems of elevation were soon solved, while those of overheating were eventually cured by sponging the guns with oil. One great-gun burst but was re-cast and then moved to the Sultan's tent battery, where it was later joined by the third great-gun, plus smaller cannon.

Breaches were made near the St. Romanus and Egri Gates and infantry assaults followed, but were driven back. The Ottomans now decided to concentrate on the St. Romanus Gate and its flanking walls. By 21 April these had largely crumbled. On 14–15 May the guns that had been shooting over Galata towards the Golden Horn were moved to face the Imperial Palace and then to the Sultan's tent battery. Thereafter the bombard-

ment continued until the night of 28–29 May, when one great-gun was advanced right up to the stockade of rubble and wood that the defenders had built across their collapsed walls. It fired an hour before dawn, and then once again as the Sultan and his men made their final and successful assault.

Moldavia, 1484

Following a long struggle with the Ottomans for the domination of Wallachia, Stephen of Moldavia seized Kiliya which, with Belgorod-Dnestrovskiy, controlled the trade route from the Black Sea to the Baltic. These towns also blocked the Ottoman land-link with their Tartar allies in the Crimea. Both towns had stone-towered citadels within water-filled moats, and probably walls around the urban area. Each was under a Vornic governor and two Parcalab military officers with Moldavian garrisons supported by local militias.

Against them Bayezit II led 60,000 men, including Janissaries, light artillery and mangonels. Wallachian and Crimean vassals met the Ottomans on their march. A fleet of some 100 galleys and coastal barges carried heavier siege-artillery and munitions. Mobilised on 26 April, this Ottoman force left Edirne early in May and crossed the

Danube on 26 June, to be met by the fleet and the Wallachians. Kiliya was besieged on 5 July and surrendered on the 14th. The fate of its two Parcalabs, Ivascu and Maxim, is unrecorded.

On 19 July the Ottomans set out again and during a four-day march were joined by the Crimean Tartars. The army suffered an acute shortage of water on its way, but the investment of Belgorod began on the 22nd. For 15 days cannon bombarded the town while sappers dug trenches ready for an infantry assault. Negotiations started on 5 August. On the 7th the two defending Parcalabs, German and Oana, were reportedly killed during the continuing bombardment, after which a delegation of inhabitants surrendered their city to the Sultan. One week later, after re-organising the administration and installing a garrison, Bayezit II led his army home.

Raydāniyah, 1517

The Egyptian Mamluks tried to copy Ottoman artillery techniques after their defeat at Marj Dābik in 1516. By the following year their Sultan, Tuman Bey, had built 100 ox-drawn waggons carrying arquebusiers and light copper cannon; had recruited camel-riding sharpshooters, and had collected heavy cannon from various Egyptian citadels. For his part, the Ottoman Sultan Selim I occupied Syria and Palestine, then marched rapidly across Sinai to capture Bilbays and Al Khānka.

The Mamluks believed that a defensive battle was their best hope, so Tuman Bey had a deep trench dug in front of Raydāniyah village from Jabal al Ahmar (Red Mountain) to the irrigated area. Behind this he built stone emplacements. These were intended to shield his unwieldy cannon which, firing from fixed positions, would subdue the unprotected Ottoman artillery. The new gun-waggons were also drawn up behind the trench.

On 22 January Selim's army reached Birkat al Hajj, a short way from Raydāniyah. At dawn on the 23rd the Mamluks advanced from the village to take up their positions, but the Ottomans had learned of the Mamluk plan and, instead of advancing into the trap, Selim kept his artillery out of range and led his men round the back of Jabal al Ahmar. Outflanked and finding their baggage and camp attacked from the rear, the Mamluks had to use their traditional tactics. Charging with spear,

sword and javelin, they suffered appalling losses to Janissary firearms. Both sultans fought in person, Tuman Bey actually killing one of Selim's advisors in the belief that he was the Ottoman ruler. Inevitably, however, firepower triumphed and the broken Mamluks fled, having lost very few men to traditional weapons.

Dardanelles, 1657

During the Cretan War (1654–1669) the Ottoman navy faced Venetian, Papal and Maltese (Knights of St. John) fleets which were attempting to blockade the Dardanelles from the Venetian-held islands of Limnos and Bozcaada. In June 1657 the Christian fleets decided to force the straits and attack Istanbul with 35 sailing ships, seven galleasses and 33 galleys. The Turks had meanwhile assembled 18 sailing ships, ten galeass-like square-rigged *mahun* troop transports, 30 galleys and numerous coastal craft with which to recover Bozcaada.

On the 8th most of the Christian galleys retired to Imroz, which was inadequately guarded by the Turks, for fresh water, returning on the 17th. That morning the Ottomans attacked the 20 Christian sailing ships, seven galleasses and four remaining galleys which were blockading the Dardanelles. These had, however, been forced into mid-channel by coastal batteries. A confused *melée* followed which drifted to Bozcaada, where the Christians anchored. Most of the Turks sailed on to Mitilini,

Kus-i Hakani, the Sultan's lion-skin Imperial drum, 16th century. (Army Museum, Istanbul)



though some of their galleys, seeing the Christians returning from Imroz, returned to defend the Dardanelles.

Morale now slumped in the Christian fleet, and on 23 June the Papal and Maltese contingents sailed home. The Venetians continued to blockade the straits, but their diminished strength enabled the Ottoman galleys at Mitilini to row throughout the night of 24–25 August and land 3,000 troops on the western side of Bozcaada. On the 31st the Venetian garrison withdrew. A similar manoeuvre forced the Venetians from Limnos on 12 November.

Embossed leather cape and skirt of a Janissary *usta*, late 18th century. (Army Museum, Istanbul)



Vienna, 1683

The immediate target of the Ottoman army besieging Vienna was the wall between the Castle and Lion Bastions, which was protected by the Castle Ravelin and its counterscarp. Three approaches towards the Ravelin and Bastions were started during the night of 14–15 July, linked by regular parallels. Vulnerable points were roofed with timber and earth, while larger sunken areas formed gun-batteries or assembly points for assault troops.

An artillery bombardment began the following morning, and the batteries were then moved forward as the trench system advanced. But as the Ottomans had only brought 17 medium and 95 light cannon, plus some mortars, this bombardment served only to keep the defenders' heads down. Infrequent sorties by the garrison were ineffective, and once the Turkish trenches had reached the outer defences the most notable activities for the next weeks were Ottoman mining and infantry assaults. Mining, in fact, began in earnest beneath the salient angles of the Ravelin and the two bastions on 22 July. At first its impact was slight, and subsequent assaults were beaten back. Counter-mines by the defenders were even less effective and most only undermined Vienna's defences still further. Meanwhile the Turks raised earthworks that overlooked the Ravelin.

The daily pattern of Ottoman activity consisted of intensive artillery bombardment during the morning, the explosion of mines in the afternoon, and infantry attacks by evening or night. Sapping and mining gradually obliterated the Viennese earthworks, and on 9 August the Ottomans reached the moat, where they roofed their now vulnerable trenches. On the 12th a large mine even threw up a rubble causeway onto the Ravelin, part of which the Turks seized. Their tactics were now virtually those of 1918 storm-troopers, with small groups of 30 to 100 men making night assaults for limited objectives. The Ottomans advanced foot by foot until, on 2 September, the defenders had to abandon the Ravelin entirely. This, plus a mine which opened up part of the Castle Bastion on the same day, meant that Vienna could not hope to hold out much longer. Further mines brought down the left wall of the Castle Bastion plus the point and left wall of the Lion Bastion.



Hosap, east of Lake Van, was a typical Kurdish feudal castle to which the Ottomans added large round towers suitable for artillery.

By 12 September the Ottomans were even mining beneath the city's curtain-wall to the left of the Ravelin, but on that day a battle was fought outside Vienna in which John Sobieski's relieving army crushed the Turkish besieging forces.

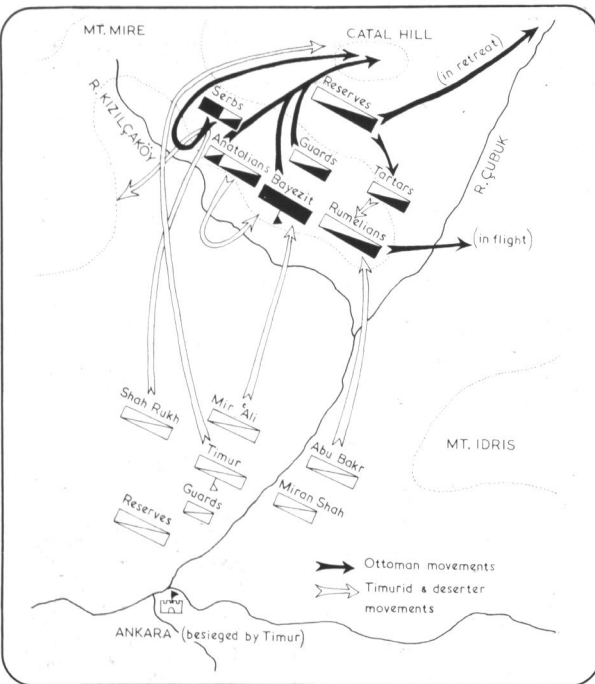
Gročka, 1739

A three-pronged Austrian invasion of Ottoman territory in 1737 was soon routed, although an Austrian force still held Beograd a year later. Most Ottoman successes were the result of the Comte de Bonneval's planning and reforms, before his arrogance led to his being sacked.

By the spring of 1739 both sides were eager for a decisive battle. The Ottomans assembled some 100,000 men in western Bulgaria facing a reorganised enemy army around Petrovaradin. On 22 July Marshal Wallis of Austria, learning that the

Ottomans were advancing up the Danube but ignorant of their strength, led 56,000 troops plus light cavalry, artillery and irregulars across the Sava river and past Beograd. Meanwhile the Grand Vizier Silâhtar Mehmet Pasa marched through Smederovo and took up a defensive position north-west of Gročka. Here he ranged his infantry along the wooded hillsides overlooking the road from Beograd as it wound through a defile between Bolec and Gročka.

Wallis thought he only faced a small Ottoman unit that blocked the road as it emerged from this defile, and so charged ahead with his cavalry. These horsemen soon found themselves entangled in vineyards. They and the Austrian infantry, who



The battle of Ankara, 1402.

were strung out virtually in single file behind them, were now assailed by concentrated musketry. Most of the cavalry retreated in disorder, but one regiment of Palfry Cuirassiers seized a small hill. Using their lances as pikes, they resisted many counter-attacks until finally overrun.

Relatively few Janissaries held those hills squeezed between the defile and the broad Danube, as such an isolated position could easily have become a death-trap. Most of the Ottoman troops were to the west, from where they poured fire into the confused Austrians. After 15 assaults by the Janissaries, nightfall enabled Marshal Wallis to retreat six miles to Vinča, after losing 3,000 killed and 7,000 wounded.

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The Plates

A1: West Anatolian infantryman, first half 14th century
 The Byzantine army, re-organised along French lines in the 12th century, had changed little by the early 14th. This man uses a *tufenk* blowpipe to project Greek Fire. His typically large Byzantine shield was primarily a defence against arrows. ('Barlam and Joasaph', Byzantine manuscript, 14th cent., Ms. Grec. 1128, Bib. Nat., Paris; 'St. Theodore Tiro', Byzantine fresco, 1308–1321 AD, *in situ* Kariye Cami, Istanbul.)

A2: Ottoman Gazi, first half 14th century
 This *gazi*, or religious volunteer, wears a style of buff-leather armour originally introduced by the 13th century Mongols. The circular ear-pieces on his helmet are also of Mongol derivation, while his straight sword is typically Iranian. (Isolated miniatures, Azarbayjan, mid-14th cent., Ms. Haz. 2153, Topkapi Lib., Istanbul; gilded sword-hilt, Iran, early 14th cent., City Art Museum, St. Louis.)

A3: Turcoman tribal horseman, early 14th century
 Turcoman horse-archers formed the bulk of early Ottoman armies. Most would have been unarmoured or have only a leather-lamellar cuirass, as

shown here. This man, however, is a leader and also wears an iron helmet with an ample mail aventail. (Helmet, Anatolian Turkish, late 13th-early 14th cent., Topkapi Armoury, Istanbul; 'Kitāb-i Samak Ayyār', western Iran, early 14th cent., Ms. Ous. 381, Bodleian Lib., Oxford; 'Shah-Namah', Azarbayjan, 1335/6 AD, ex-Demotte Coll., now scattered.)

B1: Ottoman-Balkan Yaya, early 15th century

Many Ottoman infantrymen were of Christian origin and this seems to have been reflected in their equipment. This man wears an Italian-style reinforced 'jacket' over eastern dress. His feathered javelin with its bag of incendiary material was used against siege-engines, ships, wooden defences or simply to terrify the foe. (Isolated miniatures, Armenia-Azarbayjan, late 14th-early 15th cent., Ms. Haz. 2153, Topkapi Lib., Istanbul; 'Judgement of Anne and Caiphas', carved wooden coffer, Transylvania, late 14th cent., Putna Monastery, Moldavia; 'Orientals', Italian fresco, mid-14th cent., *in situ* Castle of Sabbionara, Avio; 'Treatise on Warfare', Mamluk, 15th cent., Kier Coll., London.)

B2: Turkish Sipahi, c.1400

Feudal cavalry were the backbone of medieval Ottoman armies. This man wears a 'turban' helmet and wields the mace favoured by many Muslim warriors. The opening of his highly decorated mail-and-plate armour is protected by an additional chest-covering medallion, and his horse's lamellar bard has a cloth covering. (Turban-helmet, Ottoman or Mamlūk, early 15th cent., private coll.; 'Three Romances by Kirmānī', miniatures by Junayd al Sultānī, Iraq, c.1395 AD, Ms. Add. 18113, Brit. Lib., London; 'Iskandar-Nāmah', northern Anatolia, 1416 AD, Ms. Turc. 309, Bib. Nat., Paris.)

B3: Ottoman infantry, early 15th century

This man is clearly one of the Sultan's élite. He wears full infantry armour of mail-and-splints, probably designed for siege-warfare. Even his engraved iron shield could resist primitive firearms. His sword is slung from his shoulder, a style only used by foot soldiers. (Turkish infantry armour, 15th cent., Met. Museum of Art, New York.)



This miniature of Ken'an Paşa marching against Albanian rebels shows the new infantry who were then the most effective Ottoman troops. (Paşanâme, c.1630, Ms. Sloane 3584, f.20a, Brit. Lib., London)

C1: Wallachian Vojnik auxiliary, c.1500

The military equipment of the Balkans under Ottoman domination soon added Turkish styles to previous Byzantine and western European fashions. This man's helmet is of Asiatic form. His armour is Italian, but old-fashioned, while his weapons and shield are typically eastern European. (Sword of Stephan the Great of Moldavia, second half 15th cent., Topkapi Museum, Istanbul; pavise-shield, Romanian, 15th cent., Central Military Museum, Bucharest; halbard, Wallachian, second half 15th cent., Regional Museum, Buzău; 'Hungarians', woodcut by Burgkmair, early 16th cent., Nat. Bib., Vienna.)

C2: Janissary, 15th century

The government-issued equipment of the Janissary infantry was simple but of good quality, as was their



Interior of the town gate of Ohrid in Macedonia, showing the iron-plated doors. Most of these fortifications date from Ottoman times and surround the 11th century citadel of the Bulgarian Tsar Samuel.

heavy woollen clothing. The characteristic woollen cap would later grow larger, while shield and bow would soon both be abandoned in favour of a musket. (Drawing of a Janissary by Gentile Bellini, 15th cent., British Museum, London.)

C3: North African marine, early 16th century

Maghāribah, or North Africans, were among the most effective naval troops in the Ottoman muster, and the crossbow, some four feet long, was their favoured weapon. This man wears an ex-Spanish salet helmet and a mail shirt of Mamlūk Egyptian origin. His fine leather *adarga* shield is, however, typically Moorish. ('Spaniards capture Oran from the Moors', fresco by Juan de Borgogna, early 16th cent., *in situ* Mozarabic Chapel, Toledo Cathedral; Moorish *adarga* shield, late 15th cent., Real Armeria, Madrid; Italo-Moorish helmet, late 15th cent., Astor Coll., Hever Castle.)

D1: Army Commander, c.1600

An abundance of fine robes, fur-lined and richly embroidered, were a mark both of rank and of the Sultan's favour. This man's iron helmet, shaped like a turban wound around a cap, is something of a curiosity and was probably more decorative than effective. (Helmet of Ali Paşa, 16th cent., Real Armeria, Madrid; portraits of Sultans, Ottoman, 1574–1595 AD, Ms. Haz. 1563, Topkapi Lib. Istanbul.)

D2: Silâhtar, second half 16th century

The *silâhtars*, with their striking red Janissary-style woollen caps, were one of the Sultan's guard regiments. This was naturally reflected in the richer quality of their clothing and weapons. ('Sülaymān-Nāmāh', Ottoman, 1558 AD, Ms. Haz. 1517, Topkapi Lib., Istanbul; 'Nusrat-Nāmāh', Ottoman, 1584 AD, Ms. Haz. 1365, Topkapi Lib., Istanbul.)

D3: Guard cavalryman, second half 16th century

Men from the *kapikulu* cavalry were an élite and often ended up as senior officers. This man probably wears armour beneath his robes, though only helmet and arm-defences are visible. (Brass standard, Army Museum, Istanbul; 'Shāh-Nāmāh of Selīm Khān', Ottoman, c. 1570 AD, Ms. Ahmet 3595, Topkapi Lib., Istanbul.)

E1: Solakbaşı, second half 16th century

The *solak* guards formed the ruler's ceremonial protection and an archaic bow and infantry quiver were their distinctive mark. Their senior officer, or *başı*, ranked seventh in the entire Janissary corps. ('Divan', of Nādirī, Ottoman, 1573/4 AD, Ms. Haz. 889, Topkapi Lib., Istanbul; 'Hüner-Nāmāh', Ottoman, 1584 AD, Ms. Haz. 1523, Topkapi Lib., Istanbul.)

E2: Acemî Oğlan, late 16th century

The *acemî oğlan*, or trainee Janissary, having studied Turkish on an Anatolian farm, now learned to be a soldier. His musket is a simple spring-loaded matchlock. ('Book of Ottoman costumes', Austrian, 1586 AD, Cod. 8615, Nat. Bib., Vienna; matchlock musket, Ottoman, early 17th cent., Army Museum, Istanbul; 'Shāh-Nāmāh of Mehmet III', by Nisāārī, Ottoman, c. 1600 AD, Ms. Haz. 1609,

Topkapi Lib., Istanbul.)

E3: Naval Janissary, in parade uniform, late 16th century
Each Janissary *orta* had its own crest, worn only on special parades. This man wears a model galley in his plume-holder, probably showing him to be from one of the marine regiments. His curved sword is a *palyos*, similar to the European naval cutlass. In his belt he also carries a small axe for cutting musket-ball lead from the bars which he keeps in his pouch. ('Book of Ottoman Costumes', Austrian, 1586 AD, Cod. 8615, Nat. Bib., Vienna; matchlock musket, Ottoman, early 17th cent., Army Museum, Istanbul; 'Sülaymān-Nāmāh', Ottoman, 1557 AD, Ms. Haz. 1517, Topkapi Lib., Istanbul.)

F1: Sipahi, early 17th century

This horseman wears the final form of Ottoman cavalry armour. His *çiçak* helmet has an additional mail aventail which betrays the sharp shoulder outline of his mail-and-plate *korazin*. Armed with two swords (one under his saddle), a *yatağan* and a pair of pistols, he also carries a two-horsetail *tug* provincial standard. (Helmet, Ottoman, late 16th cent., Tower of London Armouries; Sipahi armours, Ottoman, 16th cent., Waffensammlung Vienna and Swiss Arms and Armour Institute, Grandson Castle; horse-armours, Ottoman, 16th cent., Grandson Castle and Historisches Museum, Bern; *Shāh-Nāmāh* of Murat III', Ottoman, c.1585 AD, Edwin Binney Coll., New York; 'The Prophet with his Army', Ottoman, c.1660 AD, Edwin Binney Coll., New York.)

F2: Deli scout, c.1600

The Balkan origins of the *deli* scouts were shown in their weaponry and clothing. Such light cavalry often sported extravagant feathered, animal-skin headgear and carried eastern European-style shields. (*Kazarğand* armour, Ottoman 16th-17th cent., Topkapi Armoury, Istanbul; 'History of Sultan Sülaymān', Ottoman, 1579 AD, Ms. 413, Chester Beatty Lib., Dublin; 'Nusrat-Nāmāh', Ottoman, c.1582 AD, Ms. Add. 22011, Brit. Lib.)

F3: Arab auxiliary, early 17th century

Bedouin tribesmen acquired their equipment from wherever they could. Armour, like this man's mail-and-plate cuirass and coif, were certainly made in

the Arab provinces, but booty was just as important. This man's helmet and sword are, however, Mamlūk, two centuries old and probably treasured family heirlooms. (Mail-and-plate armour and coif, Ottoman-Syrian, 17th cent., National Museum, Damascus; 'Life of Muhammad', by Mustafā Zarīr, 1594/5 AD, Ms. 419, Chester Beatty Lib., Dublin; helmet, Mamlūk, late 15th cent., Topkapi Armoury, Istanbul.)

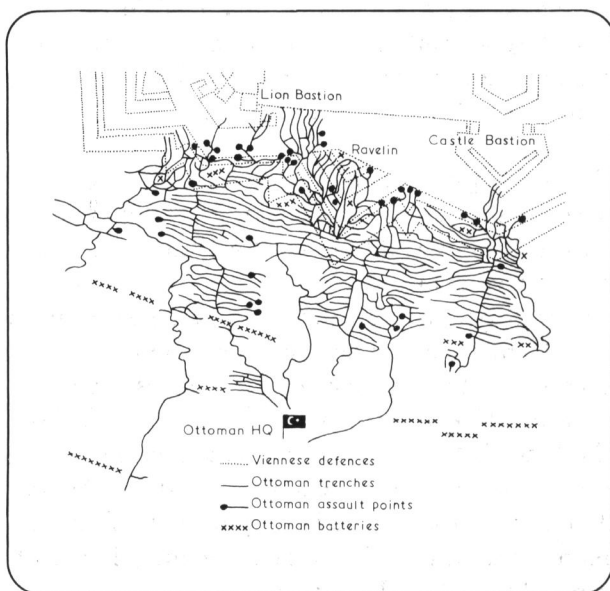
G1: Tüfekçi, mid-17th century

Tüfekçi musketeers were among the new infantry recruited during the 17th century. This man has an imported Dutch rapier, and a Turkish-made musket with an imported European wheel-lock. ('Paşa-Nāmāh', Ottoman, c.1630, Ms. Sloane 3584, Brit. Lib., London; wheel-lock musket, Ottoman, 17th cent., Army Museum, Istanbul.)

G2: Peyk, late 17th century

The *peyk* was basically one of the Sultan's messengers, but his real duties spread far beyond that. He carried the ruler's orders to his commanders, a privilege reflected in the magnificence of his chased brass helmet and gilded or enamelled weaponry. ('Sür-Nāmāh', Ottoman, 1720 AD, Ms. Ahmet 3593, Topkapi Lib., Istanbul; 'Halīl ibn Vāyes Ağa', portrait by Levnī, early 18th cent., Ms. Haz. 2164, Topkapi Lib., Istanbul.)

Ottoman siege-works and the fortifications of Vienna, 1683. (After Suttinger)





The modern Turkish Army has maintained a traditional *mehter* band since 1953. Its members perform on original instruments (here a *kaba zurna*, the original of the European clarinet) and wear replica Ottoman uniforms.

G3: Kapikulu cavalryman, mid-17th century

Ottoman horsemen largely abandoned armour in the 17th century, although this man, lacking even a helmet, would seem to have been caught unprepared for combat. Even his three *çirit* javelins were now used more for sport than war. ('Murat IV with servants', portrait, Ottoman, 1639 AD, Ms. Haz. 2134, Topkapi Lib., Istanbul; 'Shāh-Nāmah', Ottoman, c.1630 AD, Ms. Haz. 1116, Topkapi Lib., Istanbul; 'Khamsah', by 'Atā'ī, c.1675 AD, Ms. R. 816, Topkapi Lib., Istanbul; javelins and quiver, Ottoman, 17th cent., Museo Civico, Bologna.)

G4: Tartar allied horseman, early 17th century

Tartar tribes from the Crimea, who fought in traditional style as horse-archers, were now the most effective cavalry in the Ottoman army. This man wears an iron skull-cap under his fur hat, and a captured Russian mail-and-plate cuirass under his heavy felt coat. (Tartar saddle, 17th cent.,

Waffensammlung, Vienna; mail-and-plate cuirass, Russian, c.1600 AD, State Historical Museum, Moscow; Tartars in 'History of Sultan Sülaymān', 1579 AD, Ms. 413, Chester Beatty Lib., Dublin.)

H1: Bosnian frontiersman, mid-18th century

Now on the defensive, the Ottoman Empire relied heavily on the guerilla tactics of Muslim villagers like this Bosnian. He is formidably armed with a snaphaunce musket, pistols, large *yatağan* dagger and Dalmatian schiavona sword. (Flintlock musket, Ottoman, early 18th cent., Nat. Museum of Archaeology, Madrid; 'Sūr-Nāmah', Ottoman, 1720 AD, Ms. Ahmet 3593, Topkapi Lib., Istanbul.)

H2: Egyptian Mamlūk Sipahi, mid-18th century

The Mamlūks of Egypt preserved their proud but outdated medieval traditions of horsemanship, though they no longer wore armour. As light cavalry, armed with spear and sabre plus the still-despised pistol, they remained unsurpassed. A silver powder horn is slung on the left hip. ('Book of Ottoman Costumes', Ottoman for a German readership, mid-18th cent., Bavarian State Lib., Munich; drawings of Mamlūks by Carle Vernet, French, late 18th cent., Bib. Nat., Paris.)

H3: Dervish, 18th century

Muslim holy-men, roughly equivalent to Christian friars, despised wealth and won their living by begging. In the Ottoman Empire many retained pre-Islamic pagan Turkish practices. Those of the Bektāši order, however, were closely associated with the Janissary corps and accompanied them on most of their campaigns. Note the large wooden sword that had long been a religious symbol in Islam. ('Dervishes', Ottoman drawing, 17th cent., Kraus Coll., New York; 'Bektāši dervish', engraving by unknown artist, *The Dervishes* by J. P. Brown, London 1868; Sūfi's begging bowl, Persian, early 19th cent., Victoria and Albert Museum, London.)

The Citadel of Van has been of vital strategic importance for thousands of years. It still covers a huge area and its best-preserved walls date from the Ottoman era. (photo T. A. Sinclair)





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- 1: West Anatolian infantryman, first half 14th C.
- 2: Ottoman Gazi, first half 14th C.
- 3: Turcoman tribal horseman, early 14th C.



1: Ottoman-Balkan Yaya, early 15th C.

2: Turkish Sipahi, c.1400

3: Ottoman infantryman, early 15th C.

1: Wallachian Voynik auxiliary, c.1500

2: Janissary, 15th C.

3: North African marine, early 16th C.





1: Army commander, c.1600

2: Siláhtar, second half 16th C.

3: Guard cavalryman, second half 16th century

1: Janissary senior officer, parade uniform, second half 16th C.

2: Acemi Ođlan, late 16th C.

3: Naval Janissary, parade uniform, late 16th C.





1: Sipahi, early 17th C.
2: Deli scout, c.1600
3: Arab auxiliary, early 17th C.



- 1: Tüfekçi, mid-17th C.
- 2: Peyk, late 17th C.
- 3: Kapikulu cavalryman, mid-17th C.
- 4: Tartar cavalryman, early 17th C.

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1: Bosnian frontiersman, mid-18th C.
2: Egyptian Mamlūk Sipahi, mid-18th C.
3: Bektaşî dervish, 18th C.